YOUR FINGER. YOUR KEY.

en **OPERATING INSTRUCTIONS**

English

Translation of the original instructions – ID190/519/0/354

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About these instructions

Note

Read these instructions carefully before use. These instructions form a component of the product. Ensure that they are stored in a safe place. These instructions contain important information on the product; in particular, its proper use, safety, installation, activation, usage, maintenance, and disposal.

Please contact your dealer for further information about the product.

A large-font version of these instructions is available at http://www.ekey.net.

These operating instructions are not subject to updating. We reserve the right to make technical modifications and change the product's appearance; any liability for errors and misprints is excluded.

Declaration of conformity

ekey biometric systems GmbH hereby declares that the product conforms to the relevant European Union directives. The declarations of conformity for the individual products can be downloaded from http://www.ekey.net.

Warranty and manufacturer's guarantee

The version of our general terms and conditions in force on the date of purchase shall apply. See http://www.ekey.net.

Copyright

Target group

These instructions are aimed at persons who activate and perform maintenance on the ekey system, create users, and instruct users in how to operate the system.

Explanation of symbols, abbreviations, and terminology

Symbols:

1.	Step-by-step instructions
	References to sections of these instructions
	References to the mounting instructions
	References to the wiring diagram
□	Listing without specified order, 1st level
	Requirements for performing instructions
✓	Outcomes of instructions
Displayed value	Displayed values
ekey home FS OM	Product names
MENU ITEM	Menu items
Button	Buttons

CEST	Central European Summer Time. CEST starts on the last Sunday in March at 02:00 Central European Time (CET), when the clocks go forward one hour from 02:00 to 03:00. CEST ends on the last Sunday in October at 03:00 CEST, when the clocks go back one hour from 03:00 to 02:00.
CP	Control panel
DRM	DIN-rail mounted
FAR	False acceptance rate. The false acceptance rate describes the likelihood of a biometric security system granting access to someone who does not have access authorization, or the relative frequency with which the system does so.
FRR	False rejection rate. The false rejection rate describes the frequency with which persons are erroneously rejected by a biometric system even though they have access rights or access authorization.
FS	Finger scanner
IN	integra
KP	Keypad
OM	Outlet-mounted
RFID	Radio-frequency identification
RU	Registration unit (finger scanner or code pad)
SaR	Status after reset
WM	Wall-mounted

Channel	Transmission channel: Device (e.g., cable) or medium (e.g., atmosphere) that transmits signals from a transmitter to a receiver.
Identification method	Method that a registration unit uses to identify a person. Examples include fingers, RFID transponders, and user codes.
Matching	Comparison between the stored reference and the identification feature. If the two match, the device signals user recognition.
Normal mode	Default operating status in which the system is operated.

Safety information

Proper use and areas of application

This product is an access control system with a biometric or mental identification feature (finger scan or user code). The system is comprised of between one and four registration units and a control panel. It is available in various models and component combinations.

The biometric access control system detects the characteristics (minutiae) of the fingerprint contours, compares them to the biometric information saved from the reference fingerprint image, and opens the door in the event of a match. One variant allows the user to be identified and the door opened by means of an RFID transponder.

The mental access control system detects the user codes which are entered, compares them to the stored reference user codes, and opens the door in the event of a match.

The system is primarily designed for opening house doors, apartment doors, and garage doors in homes and businesses.

To ensure proper use, the ekey system must be installed in accordance with the mounting instructions and the wiring diagram. The installation must be performed in full and by a professional. The electrical engineer who installs the equipment must approve the ekey system for use, as well as any accessories that are installed.

The ekey system is suitable for use as outlined in these instructions. Any other kind of use is deemed improper use.

Product liability and limitation of liability

Safe operation and function of the devices can be impaired in the following situations. Liability due to malfunctioning is transferred to the operator/user in such cases:

- The system devices are not installed, used, maintained, or cleaned in accordance with the instructions
- The system devices are not used within the scope of proper use
- Unauthorized modifications are carried out on the system devices by the operator.

Classification of notices

DANGER

Safety notice: Denotes imminent danger which could lead to death or serious injuries.

ATTENTION

Notice: Denotes possible property damage which cannot result in injuries.

NOTICE

Notice: Denotes additional information and useful tips.

Notices

DANGER

Risk of electrocution: All *ekey home* devices are to be operated with Safety Extra Low Voltage (SELV). Only use power supplies rated protection class 2 according to VDE 0140-1.
Failure to do so will create a risk of fatal electrocution.
Only certified electricians are authorized to carry out the electrical installation work!

ATTENTION

Tamper-proofing: Do not mount the control panel outdoors.
If it is mounted outdoors, it could be tampered with.
Mount the control panel in a secure internal area.

Introduction to the system

System overview

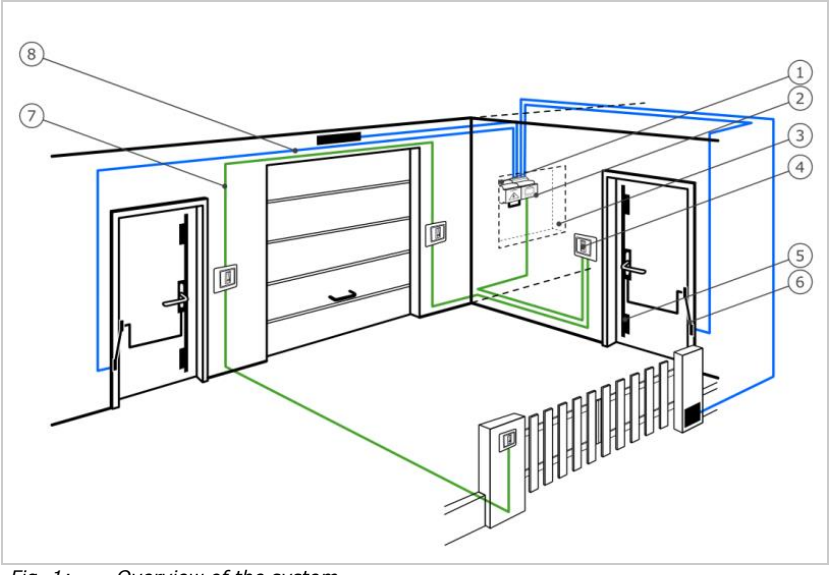


Fig. 1: Overview of the system

1 Power supply
2 ekey control panel
3 Distributor box
4 ekey registration unit
5 Motorized lock
6 Cable transfer
7 Connecting cable from registration unit to control panel
8 Connecting cable from control panel to motorized lock

The system is comprised of between one and four registration units and a control panel.

The biometric access control system detects the characteristics (minutiae) of the fingerprint contours, compares them to the biometric information saved from the reference fingerprint image, and opens the door in the event of a match. One variant allows the user to be identified and the door opened by means of an RFID transponder.

The mental access control system detects the user codes which are entered, compares them to the stored reference user codes, and opens the door in the event of a match.

Scope of delivery

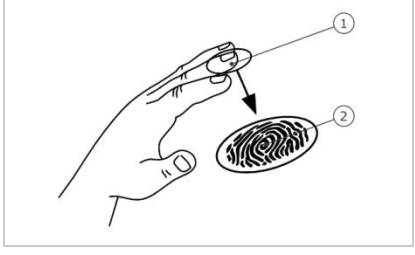
- One to four registration units
- RFID transponder for finger scanners with an RFID function
- One control panel
- Operating instructions, mounting instructions, wiring diagram
- Optional: matching accessories (cable transfer, power supply, connecting cable, covers, etc.).

Finger scanner

Product name	***ekey FS WM***	***ekey FS IN***	***ekey FS OM***
Figure			

Table 1: Finger scanner

Function of the finger scanner



1 Front phalanx
2 Fingerprint

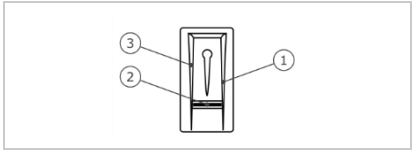
Fig. 2: Fingerprint

The finger scanner detects the fingerprint by means of a line sensor and subsequently processes it. It compares the result with that of the biometric information extracted from the reference fingerprint image and opens the door in the event of a match. The finger scanner only works correctly and reliably with the front phalanx print. Swipe your finger steadily and evenly over the sensor in the correct position.

The models with an RFID function detect and identify RFID transponders.

Control	Function
Finger swipe area	Store fingers by “swiping the finger” evenly downward over the sensor. Identification by “holding up the RFID transponder”, which involves holding an RFID transponder over the finger swipe area of the finger scanner.
Sensor	System programming by “Finger Touch”, a short, rapid touch of the sensor with the finger.

Table 2: Finger scanner controls



1 Right guiding edge
2 Sensor
3 Left guiding edge

Fig. 3: Finger swipe area and sensor

Incorrect operation will impair the function of the finger scanner.

"Swiping the finger":

Step	Figure	Description
1st		Hold your finger straight and place it centrally between the guiding edges. Do not twist the finger.
2nd		Place the joint of the front phalanx directly onto the sensor. Place your finger flat onto the finger swipe area.
3rd		Stretch out the neighboring fingers.
4th		Move your finger evenly downward over the sensor. Move the whole hand simultaneously. Swipe the front phalanx fully over the sensor in order to achieve optimal results. The movement takes approx. 1 second.

General hints for achieving a good-quality fingerprint

- The index, middle, and ring fingers work best. The thumb and small finger supply fingerprints that are difficult to analyze.
- In the case of fingers that are frequently wet, store the images with wet fingers.
- Children's fingerprints work from approx. 5 years of age.

"Finger Touch"

Step	Figure	Description
1st		Briefly touch the sensor with your finger.

"Holding up the RFID transponder"

NOTICE

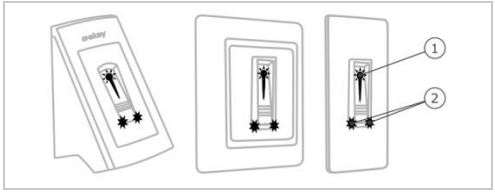
Only in the case of an RFID function: The "holding up the RFID transponder" option is only available for finger scanners with an RFID function.

Step	Figure	Description
1st		Hold the RFID transponder face parallel to the finger swipe area of the finger scanner at a distance of 1 to 5 cm.

Optical signals on the finger scanner

There are 2 types of LED:

- Status LED for operating status
- Function LED for indicating the function of the overall system.



1 Status LED
2 Function LEDs

Fig. 4: Optical signals on the finger scanner

Code pad

Function of the code pad

The code pad captures the user code by means of the capacitive keypad. The user code opens the door. The code pad compares what has been entered with the stored reference codes. The code pad can handle user codes containing 4 to 8 digits. The digits in the user code cannot all be the same; at least one of them must be different.

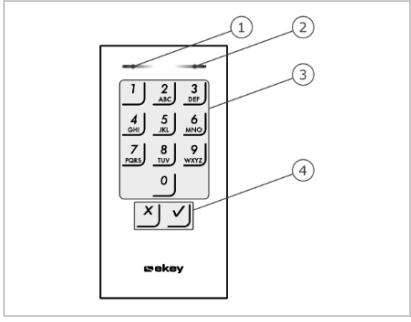
Controls, optical signals, and acoustic signals on the code pad

The code pad has 2 sections with controls.

Control	Function
Input buttons	Enter user code.
Confirmation buttons	Confirm user code entry as positive or negative.

Table 3: Code pad controls

2 status LEDs signal the operating statuses (user code correct, user code incorrect, etc.). An acoustic signal transmitter signals that the button has been pressed and that access has been enabled.



1 Left status LED
2 Right status LED
3 Input buttons
4 Confirmation buttons

Fig. 5: Code pad overview

The back-illumination of the keypad is blue, dimmable, and switches on or off according to the lighting conditions.

Control panel

The control panel works with any *ekey home* registration unit. You can operate up to 4 registration units per control panel.

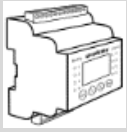
Product name	***ekey multi CP DRM 4***
Figure	
Mounting type	Mounted in distributor box, DIN-rail mounted, 4HP, 4 relays, 4 digital inputs

Table 4: Control panel

NOTICE

Network: If you connect more than one registration unit to the *ekey multi CP DRM 4*, this creates a network. Pay attention to the network topology and terminations.

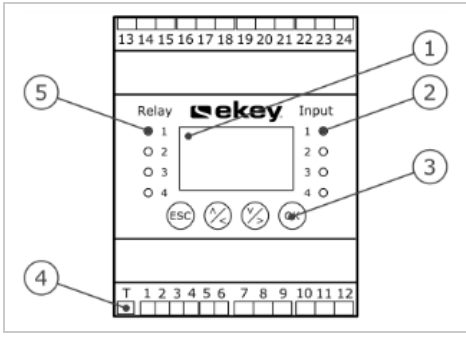
See “Installation”, page 20.

Function of the control panel

The control panel is the actuator of the system. The control panel switches up to 4 relays and makes 4 digital inputs available.

Controls	Function
LCD display and 4 buttons	Programming and configuring, relay control.

Table 5: Control panel controls



1 LCD, back-illuminated
2 Status LEDs for digital inputs (light up red)
3 Keypad
4 Toggle switch for termination
5 Status LEDs for relays (light up green)

Fig. 6: Overview of the ekey multi CP DRM 4

Button	ESC	∧/<, ∨/>	OK
Name	ESC	Arrow pointing up, to the left, down, to the right	OK
Function	Leave a menu level, cancel input.	Navigate in the menu, set values.	Save values, jump to the next menu level.

Table 6: Control panel buttons

The status LEDs signal the following statuses:

- The status of the relay. The status LED lights up green when the associated relay is enabled
- The status of the digital input. The status LED lights up red when the associated digital input is enabled (e.g., the request-to-exit button).

Menu items

The control panel main menu includes various menu items.

SAVE USER	Stores users, fingers, RFID transponders, and user codes; assigns keys to fingers, RFID transponders, or user codes.
DELETE USER	Deletes individual keys from a user or users.
LOG	Logs access actions.
SPECIAL MODE	Sets the special modes.
SETTINGS	Applies various settings.
RESET	Resets the system to default settings.

Sub-menu items from the **SETTINGS** menu item

The SETTINGS menu item in the control panel main menu includes various sub-menu items:

TIME DATA	Defines time zones; sets the time, date, and time format; activates automatic summer time.
MASTER KEY PLAN	Sets the master key plan.
SWITCHING DURATION	Changes the switching duration; sets the time-delayed opening; activates status after reset.
DIGITAL INPUT	Sets digital input 1.
REGISTRATION UNIT/KNX	Sets registration unit and *ekey home converter KNX RS-485*: For a finger scanner: LED intensity For a code pad: acoustic signal on opening, signaling that indicates when a button has been pressed, automatic back-illumination, back-illumination brightness For an installed KNX converter: sets *ekey home converter KNX RS-485*.
FS/KP ASSIGNMENT	Informs the control panel of new registration units, deletes registration units, synchronizes identification features.
TEST MODE	Performs test mode.
SECURITY CODE	Sets the security code.
LANGUAGE	Sets the menu language.
VERSIONS	Displays firmware versions and the number of identification features stored on each device in the system.

NOTICE

Automatic display switch-off: The control panel is optimized for energy consumption. The LCD switches off completely if you do not press any buttons for approx. 3 minutes. The display switches on again as soon as you press a button.

Technical specifications

Name	Unit	Values
Supply voltage	VDC	8-24
Power	W	Minimal (heating off): 1
		Maximal (heating on): 4 (*WM*, *OM*), 3 (*IN*)
Operating temperature	°C	-25 to +70
Memory	Fingers	99
	RFID transponders	99 (only for finger scanners with an RFID function)
Security	FAR	1:10,000,000
	FRR	1:100
IP code	IP	*WM*: 44
		IN: 54 (front side)
		OM: 44 (with *ekey frame OM*)
Typical matching duration	s	1
RFID range with RFID FS	mm	30
RFID standard with RFID FS	-	ISO14443A
RFID transponder type with RFID finger scanner	-	MIFARE DESfire EV1 with at least 1 KB of memory

Table 7: Technical specifications: ekey home finger scanner

Name	Unit	Values
Supply voltage	VDC	8-24
Power rating	W	1
Operating temperature	°C	-25 to +70
Memory	User codes	99
Length of user code	Quantity	4-8 digits
IP code	IP	54 (front side)

Table 8: Technical specifications: ekey home keypad integra 2.0

Name		Unit	Values
Supply voltage		VDC	8-24
Power rating		W	1
Relay		Quantity	4
Switching voltage relay		VDC	42
Switching current relay		A	2
Operating temperature		°C	-20 to +70
IP code		IP	20
Digital inputs		Quantity	4 (potential-free)
Installed real-time clock	**Adjustable**	-	Adjustable via menu
	Accuracy	s/month	Approx. 265
	Running time in a power failure	h	96

Table 9: Technical specifications: ekey multi control panel DRM 4

Installation

ATTENTION

Property damage in the event of incorrect mounting and wiring: The system devices are operated using electricity.
They could be destroyed if they are mounted and wired incorrectly.
Mount and wire the system devices correctly before connecting the power.

Mount the system in accordance with the supplied mounting instructions.

Wire the system in accordance with the supplied wiring diagram.

NOTICE

Bus system and termination: The *ekey multi CP DRM 4* uses an RS-485 data connection for communication with the registration units. To ensure that the data transfer functions reliably in the *ekey multi* system, you must wire the bus system properly and connect the termination correctly.

Step	Action	Display	
1st	Ensure safe installation of the devices. Close the covers.	-	
2nd	Connect the power supply to the mains.		The control panel displays the language selection: Default setting.
3rd	No action required.		Status LED of the finger scanner flashes orange: Default setting.
			Status LEDs of the code pad flash yellow alternately: Default setting.

Activation

Activating the system

You must activate the devices in order to operate your system. The system is operated using the control panel menu.

Activating the system defines the menu language and couples the control panel and registration units with one another. These settings cannot be changed again later apart from by resetting the system to the default settings.

The system devices must be installed in order for you to activate the system.

See “Installation”, page 20.

Selecting a language

Step	Action	Description	Display
1st		Press Λ or V to select the language you require.	4REL 2.01.79.18 Deutsch English Français Italiano Slovenščina Čeština
2nd		Press OK. The control panel is ready for assigning the registration units. A point lights up each time a registration unit is found: . In our example, registration units 1 and 2 have been found.	FS/KP assignment RU01 -. RU02 -. RU03 - RU04 - - Search FS/KP Finger scanner:  Status LED of the finger scanner flashes blue. Code pad:  Status LEDs of the code pad are switched off.

Defining the name of the registration unit

Step	Action	Description	Display
3rd	OK	Press OK.	FS/KP assignment RU01 -. RU02 -. RU03 - RU04 - - Search FS/KP
4th	^/< / v/>	Press ^ or v to select the first character in the name of the registration unit. E.g., H.	FS/KP assignment HU01 -. RU02 -. RU03 - RU04 - - Search FS/KP
5th	OK	Press OK.	FS/KP assignment HU01 -. RU02 -. RU03 - RU04 - - Search FS/KP
6th	^/< / v/>	Repeat steps 4 and 5 another 3 times until the name of the registration unit is complete. E.g., HD for house door. Blank spaces are allowed.	Only finger scanners in the system: Swipe finger on: HD or press [ESC]
			Only code pads in the system: Enter user code on: HD or press [ESC]
			Mixture of finger scanners and code pads in the system: Swipe finger or Enter user code on: HD or press [ESC]

Activating the registration unit

Step	Action	Description	Display
7th	Finger scanner: 	Swipe any finger over the finger scanner. See “Correct operation of the finger scanner”, page 11.	FS/KP assignment HD - 80222405160326 RU02 -. RU03 - RU04 - - Search FS/KP  Status LED of the finger scanner flashes orange.
	Code pad:  	Enter any code on the keypad and press ☑.	FS/KP assignment HD - 80212126161413 RU02 -. RU03 - RU04 - - Search FS/KP  Status LEDs of the code pad flash yellow alternately.

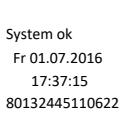
NOTICE

Finger/code is not stored: Swiping the finger or entering the code serves only to activate the registration unit. The finger/code is not stored. See "Storing users and identification methods", page 69 in order to store a finger or code for using the system.

Activating additional registration units

Step	Action	Description	Display
8th	V	Press V to position the cursor at the next registration unit that is found and assign it. In our example, this is RU02.	FS/KP assignment HD - 80222405160326 RU02 -. RU03 - RU04 - - Search FS/KP
9th	OK	Press OK.	FS/KP assignment HD - 80222405160326 RU02 -. RU03 - RU04 - - Search FS/KP
10th	^ / V	Repeat steps 4 to 7 for each additional registration unit. It is not possible to assign two positions to one registration unit.	FS/KP assignment HD -.80222405160326 RU02 -.80212126161413 RU03 - RU04 - - Search FS/KP Finger scanner:  Status LED of the finger scanner flashes orange. Code pad:  Status LEDs of the code pad flash yellow alternately.
11th	ESC	Press ESC.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code:  Status LED of the finger scanner lights up blue.  Status LEDs of the code pad are switched off.

✓ The devices have now been activated and are in normal mode:



System ok	The system is working faultlessly.
297	Number of fingers, RFID transponders, and user codes that can still be stored. You can store a maximum of 99 fingers, 99 RFID transponders, and 99 user codes for a maximum of 99 users.
80132445110622	Control panel serial number.

Performing test mode

Test mode tests the lock after it has been installed in the door. It switches the relays on and off individually and checks the electrical connections to the motorized lock.

NOTICE

Performing test mode: You can only perform test mode once you have activated the system.

See “Activating the system”, page 21.

Test mode is performed via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st	∧/< / ∨/>	Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	∧/< / ∨/>	Press ∧ or ∨ until **TEST MODE** is selected.	Settings Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment Test mode
4th	OK	Press OK.	Test mode Relay1: Disabled Relay2: Disabled Relay3: Disabled Relay4: Disabled

Step	Action	Description	Display
5th		Press ^ or v to select the desired relay. The relays are disabled (Disabled).	Test mode Relay1: Disabled Relay2: Disabled Relay3: Disabled Relay4: Disabled
6th		Press OK. The selected relay is enabled (Enabled).	Test mode Relay1: Disabled Relay2: Disabled Relay3: Disabled Relay4: Enabled
7th		Repeat steps 5 and 6 to test other relays.	Test mode Relay1: Disabled Relay2: Disabled Relay3: Enabled Relay4: Disabled
8th		Press ESC twice. The relays are now disabled again.	Save user Delete user Log Special mode Settings Reset

✓ The relays have been tested. The system displays the main menu.

NOTICE

Alternative method of terminating test mode: Test mode is also terminated when the system is disconnected from the power supply.

Entering the security code

Entering the security code grants you access to the main menu. The main menu is used to operate the system. The default security code is 99.

ATTENTION

Change the security code immediately: The security code enables access to the main menu.
If you do not change the security code, it may be possible for unauthorized persons to get into your main menu and then gain access to your premises.
Change the default security code immediately after activation! Choose a new security code and keep it secret.

See “Changing the security code”, page 30.

NOTICE

30-minute system lock if code is entered incorrectly 3 times: The system will remain locked for 30 minutes if you enter an incorrect security code 3 times in succession.

The system must be in normal mode for you to enter the security code.

See “Activating the system”, page 21.

Step	Action	Description	Display
1st	OK	Press OK.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 9
2nd	< / >	Press < or > to select the first digit of the security code.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 9

Step	Action	Description	Display
3rd	OK	Press OK.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 99
4th	^/< / v/>	Press < or > to select the second digit of the security code.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 99
5th	OK	Press OK.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 99_
6th	^/< / v/>	Repeat steps 4 and 5 until you have selected all the digits in the security code. The security code may contain a maximum of 6 digits.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code: 99_
7th	OK	Press OK.	Save user Delete user Log Special mode Settings Reset

✓ You have entered the correct security code. The system displays the main menu.

It automatically switches back to normal mode if you do not press a button within 3 min.

Changing the security code

The security code can be changed via the main menu.

NOTICE

Security code length: The security code must be between 2 and 6 digits.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st		Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ∧ or ∨ until **SECURITY CODE** is selected.	Settings Switching duration Digital input Registration unit/KNX FS/KP assignment Test mode Security code
4th		Press OK.	Security code Digits: 2 Code: - - Code: - -

Step	Action	Description	Display
5th		Press < or > to select the first digit of the new security code. E.g., 6. Next to Code below this, exactly the same number of spaces as the selected number of digits will appear.	Security code Digits: 6 Code: - - - - - - Code: - - - - - -
6th		Press OK.	Security code Digits: 6 Code: 0 - - - - - Code: - - - - - -
7th		Press < or > to select the first digit of the new security code. E.g., 1.	Security code Digits: 6 Code: 1 - - - - - Code: - - - - - -
8th		Press OK.	Security code Digits: 6 Code: 10- - - - Code: - - - - - -
9th		Repeat steps 7 and 8 until all digits of the security code have been set.	Security code Digits: 6 Code: 123456 Code: 0 - - - - -
10th		You must enter the code a second time to confirm it. Repeat steps 7 and 8 until all digits of the security code have been entered. If the two codes do not match, press ESC until the cursor is at the incorrect digit. Press < or > to select the correct digit.	Settings Switching duration Digital input Registration unit/KNX FS/KP assignment Test mode Security code

Step	Action	Description	Display
11th	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The new security code is stored. The system displays the main menu.

Setting the time data

Setting time zones

You can set two time zones which depend on the day of the week. You must assign these time zones to users. Each user only has access to his/her assigned time zone. The time zones affect all existing registration units in the system.

NOTICE

Special features of time zones:

- You cannot set different access times for different registration units.
- You must define at least one time slot in order to use a time zone. Otherwise, the user who has been assigned this time zone will have no access.
- You cannot set times which go over midnight within a time slot.

Time zones can be set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Selecting the time zone

Step	Action	Description	Display
1st		Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press OK.	Time data Time zone A Time zone B Other time data
4th		Press ∧ or ∨ to select Time zone A or Time zone B.	Time data Time zone A Time zone B Other time data
5th		Press OK.	Time zone B Reset MTWTFSS 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -

Setting the start and end time of a time slot

Step	Action	Description	Display
6th	OK	Press OK.	Time zone B Reset MTWTFSS 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
7th	^ / < / v / >	Press ^ or v to select the two digits for the hours of the start time.	Time zone B Reset MTWTFSS 07:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
8th	OK	Press OK.	Time zone B Reset MTWTFSS 07:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
9th	^ / < / v / >	Repeat steps 7 and 8 another 3 times until the start and end time of the first time slot are defined.	Time zone B Reset MTWTFSS 07:00 -19:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -

Defining the day of the week

Step	Action	Description	Display
10th	^/<, v/>	Press ^ or v to apply the time slot to the current day of the week. By pressing ^ or v, you can switch between valid (▯) and invalid (-).	Time zone B Reset MTWTFSS 07:00 -19:00 ▯- - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
11th	OK	Press OK.	Time zone B Reset MTWTFSS 07:00 -19:00 ▮▯ - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
12th	^/<, v/>	Repeat steps 10 and 11 another 6 times until the settings for this line are complete.	Time zone B Reset MTWTFSS 07:00 -19:00 ▮-▮-▮- - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -

Setting additional time slots

Step	Action	Description	Display
13th	^/<, v/>	Repeat steps 6 to 12 until you have completed the settings for the remaining three lines.	Time zone B Reset MTWTFSS 07:00 -19:00 ▮-▮-▮- - 05:00 -06:00 ▮-▮-▮- - 08:00 -09:00 - - - -▮▮ 00:00 -00:00 - - - - - - -
14th	No action required.		Time data Time zone A Time zone B Other time data
15th	ESC	Press ESC twice.	Save user Delete user Log Special mode Settings Reset

✓ The time zones have been set. The system displays the main menu.

Resetting the time zone to default settings

You can reset the entries of a time zone to the default settings.

The entries can be reset via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st	∧/< / ∨/>	Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	OK	Press OK.	Time data Time zone A Time zone B Other time data
4th	∧/< / ∨/>	Press ∧ or ∨ to select Time zone A or Time zone B.	Time data Time zone A Time zone B Other time data
5th	OK	Press OK.	Time zone B Reset MTWTFSS 07:00 -19:00 ■■■■■-- 05:00 -06:00 ■■■■■-- 08:00 -09:00 -----■■ 00:00 -00:00 -----------

Step	Action	Description	Display
6th		Press ^ or v.	Time zone B Delete? [OK]
7th		Press OK.	Time zone B Reset MTWTFSS 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - - 00:00 -00:00 - - - - - - -
8th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The time zone has been reset to the default settings. The system displays the main menu.

The main menu is used to set the date, time, and time format, as well as enable and disable the automatic switch to Central European Summer Time.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

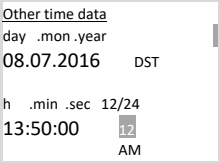
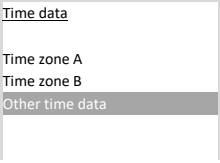
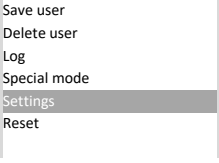
Setting the date

Step	Action	Description	Display
1st	∧/< / ∨/>	Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	OK	Press OK.	Time data Time zone A Time zone B Other time data
4th	∧/< / ∨/>	Press ∧ or ∨ to select Other time data.	Time data Time zone A Time zone B Other time data
5th	OK	Press OK.	Other time data day .mon .year 04.07.2016 DST h .min .sec 12/24 13:50:00 24

Step	Action	Description	Display
6th		Press ^ or v to select the day.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24
7th		Press OK.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24
8th		Repeat steps 6 and 7 another 2 times to set the month and year.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24

Setting the time

Step	Action	Description	Display
9th		Press ^ or v, to enable (DST) or disable (--) the automatic switch to Central European Summer Time (CEST). By pressing ^ or v, you can switch between DST and --.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24
10th		Press OK.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24
11th		Repeat steps 6 and 7 another 2 times to set the hours and minutes. Seconds cannot be set.	Other time data day .mon .year 08.07.2016 DST h .min .sec 12/24 13:50:00 24

Step	Action	Description	Display
12th		Press ^ or v to define the time format. You can choose between the 24-hour and 12-hour format (24 or 12 AM). By pressing ^ or v, you can switch between 24 and 12 AM.	
13th		Press OK.	
14th		Press ESC twice.	

✓ The date and time have been set. The system displays the main menu.

NOTICE

Time deviations: The built-in clock module is not a precision clock. The module is also not corrected using a reference clock. You must therefore expect time deviations of around 265 s per month. Check the time occasionally and adjust where needed.

Setting the master key plan

The master key plan assigns virtual keys to actuators (doors, gates, and intrusion alarm systems) and registration units.

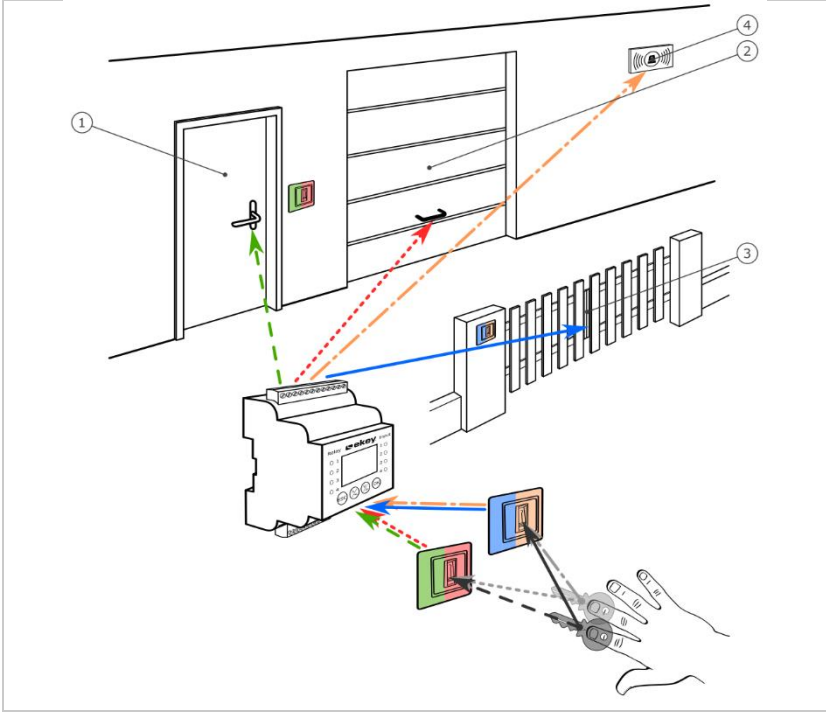


Fig. 7: Example of a master key plan with 2 keys and 2 registration units for 4 actuators:

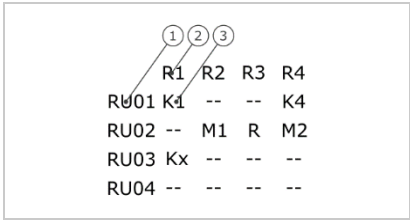
1 House door
2 Garage door
3 Access gate
4 Intrusion alarm system

The *ekey multi* system allows up to 11 keys to be defined. These 11 virtual keys are assigned to individual fingers, RFID transponders, or user codes as the users are stored. Each user then receives one or more keys.

Names in the master key plan

Name	Description and function
K1, K2, K3, K4, M	K1-4 (keys 1-4) and M (master key) are individual keys. A relay assigned to an individual key switches when an identification method with this key is recognized on the registration unit.
M1, M2, M3, M4	M1-4 are combined keys. Each combined key is comprised of the master key and one of the four keys. E.g.,: M1 = M + K1. A relay assigned to a combined key switches when an identification method with the master key (M) or an individual key (K1-4) is recognized by the registration unit.
R	R is a rejection key. A relay assigned to a rejection key switches when an identification method is not recognized on the registration unit. E.g., the relay activates a camera that photographs the entrance area. A relay assigned to a rejection key does not switch if a code is entered incorrectly 3 times on a code pad and the system is locked as a result.
Kx	Kx is a "joker" key. This "joker" key is used for any other key that is available for use. A relay assigned to a "joker" key switches whenever an identification method with any key is recognized on the registration unit.

The master key plan is shown in the form of a table:



1 Registration unit
2 Relay number
3 Key

Fig. 8: Structure of the master key plan (example)

This example shows the following:

- A user opens the house door (R1) with his/her K1 finger on the house door registration unit (RU01).
- A user enables the intrusion alarm system (R4) with his/her K4 finger on the house door registration unit (RU01).
- A user opens the garage door (R2) with his/her K1 finger on the garage door registration unit (RU02). Additionally, this user disables the intrusion alarm system (R4) with his/her K2 finger on the garage door registration unit (RU02). In the master key plan, M1 is displayed for M + K1 and M2 for M + K2 in the case of RU02.
  Another user can use his/her finger – his/her M finger – to do the same as the first user simultaneously. In the master key plan, M1 is displayed for M + K1 and M2 for M + K2 in the case of RU02.
- A stranger swipes his/her finger on the garage door registration unit (RU02). The finger is not recognized. As R (rejection key) is set here, the camera (R3) takes a photo of the area in front of the garage door.
- A user opens the house door (R1) using one of his/her fingers that have been stored for registration unit RU01 (K1) on registration unit RU03.

The key identification method is assigned when the users are stored.

See „Storing users and identification methods“, page 69.

Following initialization, the control panel operates with one of the four predefined master key plans that are generated from the number of recognized registration units:

1 registration unit

Master key plan

	R1	R2	R3	R4
HD	K1	K2	K3	K4
RU02	--	--	--	--
RU03	--	--	--	--
RU04	--	--	--	--

R1 switches the house door
R2 switches the garage door
R3 switches the access gate
R4 switches the intrusion alarm system
HD: registration unit at the house door

Fig. 9: Predefined master key plan: 1 registration unit

One registration unit uses 4 different keys – i.e., 4 different identification methods – to control 4 different devices.

2 registration units

2 registration units use 2 different keys – i.e., 2 different identification methods – to control 2 different devices.

Master key plan

	R1	R2	R3	R4
HD	K1	K2	--	--
AG	--	--	K1	K2
RU03	--	--	--	--
RU04	--	--	--	--

R1 switches the house door
R2 switches the garage door
R3 switches the access gate
R4 switches the intrusion alarm system
HD: registration unit at the house door
AG: registration unit at the access gate

Fig. 10: Predefined master key plan: 2 registration units

Each of the 2 keys – i.e., the 2 identification methods – produces a different result depending on which registration unit you use.

3 registration units

3 registration units use 2 different keys – i.e., 2 different identification methods – to control 1 device and the intrusion alarm system.

Master key plan

	R1	R2	R3	R4
HD	K1	--	--	K2
GD	--	K1	--	K2
AG	--	--	K1	K2
RU04	--	--	--	K2

R1 switches the house door
R2 switches the garage door
R3 switches the access gate
R4 switches the intrusion alarm system
HD: registration unit at the house door
GD: registration unit at the garage door
AG: registration unit at the access gate

Fig. 11: Predefined master key plan: 3 registration units

The advantage of this master key plan is that you can mount a registration unit on each door. You can also always open the doors and gates using the same K1 identification method. You can enable or disable the intrusion alarm system of each registration unit using the K2 identification method.

4 registration units

4 registration units use one key – i.e., one identification method – to control one device.

Master key plan

	R1	R2	R3	R4
HD	K1	--	--	--
GD	--	K2	--	--
AG	--	--	K3	--
IAS	--	--	--	K4

R1 switches the house door
R2 switches the garage door
R3 switches the access gate
R4 switches the intrusion alarm system
HD: House door
GD: Garage door
AG: Access gate
IAS: Intrusion alarm system

Fig. 12: Predefined master key plan: 4 registration units

In each case, one identification method opens doors and gates and enables or disables the intrusion alarm system.

4 registration units use 4 different keys – i.e., 4 different identification methods – to control 1 device and the intrusion alarm system.

You can adapt the master key plan to your requirements.

The predefined master key plan can be changed via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st		Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ∧ or ∨ until **MASTER KEY PLAN** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK. The current master key plan appears. E.g.: 2 registration units.	Master key plan R1 R2 R3 R4 HD K1 K2 -- -- GD -- -- K1 K2 -- -- -- -- -- -- -- --
5th		Press < or > to select another key at the first position.	Master key plan R1 R2 R3 R4 HD K3 K2 -- -- GD -- -- K1 K2 -- -- -- -- -- -- -- --

Step	Action	Description	Display
6th		Press OK. The first position has been set.	Master key plan R1 R2 R3 R4 HD K3 K2 -- -- GD -- -- K1 K2 -- -- -- -- -- -- -- --
7th		Repeat steps 5 and 6 until you have set all the positions in the master key plan.	Master key plan R1 R2 R3 R4 HD K3 K2 -- -- GD -- -- K1 K2 -- -- -- -- -- -- -- --
8th		Press OK until the Settings sub-menu appears.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
9th		Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The new master key plan is stored. The system displays the main menu.

Setting the switching duration

The switching duration for each individual relay can be set anywhere between 0.5 and 99 s. By default, the switching duration is set to 3.0 s. When the time is set to 0 s, the relay operates as a switch: The relay changes its switching status when an identification method is matched and it remains in that status until another identification method is matched.

You can also define whether opening is to take place with a time delay and whether the system returns to its previous status after a power failure or reset (SaR - Status after Reset).

NOTICE

Switching duration = 00.0 and SaR = - (disabled): When controlling an intrusion alarm system with switching duration = 00.0 and SaR = - (disabled), a power failure or reset will disable the intrusion alarm system. A reset is generated when you use an unrecognized identification method with the registration unit 10 times in a row. To prevent this from happening, enable the SaR function (П).

The switching duration is set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Variant a: Switching duration from 00.5 to 99.0 s

Step	Action	Description	Display
1st		Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ^ or v until **SWITCHING DURATION** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Switching duration Dur. Delay SaR R1 03.0 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
5º		Press ^ or v to set switching duration 1. E.g., 05.5.	Switching duration Dur. Delay SaR R1 05.5 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
6th		Press OK.	Switching duration Dur. Delay SaR R1 05.5 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -

Step	Action	Description	Display
7th		Press ^ or v to select the duration of a delayed opening. E.g., 10.0.	Switching duration Dur. Delay SaR R1 05.5 10.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
8th		Press OK.	Switching duration Dur. Delay SaR R1 05.5 10.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
9th		Repeat steps 5 to 8 for variant a or variant b to set the switching durations for the other three relays.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
10th		Press ESC.	Save user Delete user Log Special mode Settings Reset

Variant b: Switching duration of 00.0 s

Step	Action	Description	Display
1st		Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ^ or v until **SWITCHING DURATION** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Switching duration Dur. Delay SaR R1 03.0 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
5th		Press ^ or v to set switching duration 1 to 00.0.	Switching duration Dur. Delay SaR R1 00.0 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
6th		Press OK.	Switching duration Dur. Delay SaR R1 00.0 00.0 s - R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -

Step	Action	Description	Display
7th		Press Λ or V to enable SaR.	Switching duration Dur. Delay SaR R1 00.0 00.0 s П R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
8th		Press OK.	Switching duration Dur. Delay SaR R1 00.0 00.0 s ▮ R2 03.0 00.0 s - R3 03.0 00.0 s - R4 03.0 00.0 s -
9th		Repeat steps 5 to 8 for variant a or variant b to set the switching durations for the other three relays.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
10th		Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The switching duration of each relay is stored. The system displays the main menu.

Setting digital input 1

You can set the configuration of digital input 1 using **DIGITAL INPUT**.

NOTICE

Digital inputs 2, 3, and 4 in request-to-exit mode: Digital inputs 2, 3, and 4 are not configurable. They are always in request-to-exit mode.

Exit button

Digital input 1 functions by default as a request-to-exit button for relay 1. In this case, the relay switches for the defined switching duration or for as long as the digital input is enabled (e.g., request-to-exit button, permanent opening).

Feedback

The LEDs on the registration unit indicate the status of digital input 1 for 30 seconds when an authorized finger is swiped over the sensor or when an authorized user code is entered on the keypad. If digital input 1 is enabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up red. If digital input 1 is disabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up green. If the status of digital input 1 changes within 30 seconds, this change is also signaled in the same way. This enables you to see that the intrusion alarm system is still appropriately sensitive, for example. The feedback on the registration unit only works if a key has been assigned to the finger or user code.

Blocking R1

Relay 1 can no longer be switched while digital input 1 is enabled. The LEDs on the registration unit indicate the status of digital input 1 for 30 seconds when an authorized finger is swiped over the sensor or when an authorized user code is entered on the keypad. If digital input 1 is enabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up red. If digital input 1 is disabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up green. If the status of digital input 1 changes within 30 seconds, this change is also signaled in the same way. However, the relay does not switch automatically when digital input 1 changes from enabled to disabled.

Feedback from an intrusion alarm system which is still enabled can be performed by this function. Access via relay 1 is only possible if the intrusion alarm system has been disabled. Because relays 2, 3, and 4 can be operated, zones not monitored by the intrusion alarm system may be accessible. One of the relays can also be used for disabling/enabling the intrusion alarm system.

Blocking R1+R2

Relays 1 and 2 can no longer be switched while digital input 1 is enabled. The LEDs on the registration unit indicate the status of digital input 1 for 30 seconds when an authorized finger is swiped over the sensor or when an authorized user code is entered on the keypad. If digital input 1 is enabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up red. If digital input 1 is disabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up green. If the status of digital input 1 changes within 30 seconds, this change is also signaled in the same way. However, the relay does not switch automatically when digital input 1 changes from enabled to disabled.

Feedback from an intrusion alarm system which is still enabled can be performed by this function. Access via relays 1 and 2 is only possible if the intrusion alarm system has been disabled. Because relays 3 and 4 can be operated, zones not monitored by the intrusion alarm system may be accessible. One of the relays can also be used for disabling/enabling the intrusion alarm system.

Blocking R1+R2+R3

Relays 1, 2, and 3 can no longer be switched while digital input 1 is enabled. The LEDs on the registration unit indicate the status of digital input 1 for 30 seconds when an authorized finger is swiped over the sensor or when an authorized user code is entered on the keypad. If digital input 1 is enabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up red. If digital input 1 is disabled, the function LEDs on the finger scanner and the status LEDs on the code pad light up green. If the status of digital input 1 changes within 30 seconds, this change is also signaled in the same way. However, the relay does not switch automatically when digital input 1 changes from enabled to disabled.

Feedback from an intrusion alarm system which is still enabled can be performed by this function. Access via relays 1, 2, and 3 is only possible if the intrusion alarm system has been disabled. Because relay 4 can be operated, zones not monitored by the intrusion alarm system may be accessible. Relay 4 can also be used for disabling/enabling the intrusion alarm system.

Digital input 1 is set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28

Step	Action	Description	Display
1st		Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ^ or v until **DIGITAL INPUT** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Digital input Exit button Feedback Blocking R1 Blocking R1+R2 Blocking R1+R2+R3
5th		Press ^ or v to select the function you require.	Digital input Exit button Feedback Blocking R1 Blocking R1+R2 Blocking R1+R2+R3
6th		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
7th		Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The digital input has been set. The system displays the main menu.

Setting registration units

Finger scanner

Setting the LED intensity

The intensity of the status LEDs on the finger scanner can be set when it is in idle mode.

The LED intensity is set via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Setting the LED intensity of a finger scanner

Step	Action	Description	Display
1st	∧ / ∨	Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	∧ / ∨	Press ∧ or ∨ until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th	OK	Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
5th		Press ^ or v to select a registration unit that is a finger scanner. In this case, for example, HD.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
6th		Press OK.	LED intensity HD LED on LED dimmed LED off
7th		Press ^ or v to select the desired LED intensity.	LED intensity HD LED on LED dimmed LED off
8th		Press OK.	LED intensity HD LED on LED dimmed LED off
9th		Press ESC.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Setting the LED intensity of other finger scanners

Step	Action	Description	Display
10th		Repeat steps 5 to 9 to set the LED intensity of other finger scanners.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
11th		Press ESC twice.	Save user Delete user Log Special mode Settings Reset

✓ The LED intensity has been set. The system displays the main menu.

Enabling or disabling the signal for opening

The acoustic signal for opening the door can be enabled or disabled.

The acoustic signal for opening the door is set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st	^ / v	Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	^ / v	Press ^ or v until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th	OK	Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
5th	^ / v	Press ^ or v to select a registration unit that is a code pad. In this case, for example, GAR.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
6th		Press OK.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
7th		Press OK until the desired setting is selected: Y = enabled, N = disabled.	Code pad Opening signal : N Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
8th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The acoustic signal for opening the door is enabled or disabled. The system displays the main menu.

Setting the signaling that indicates when a button has been pressed

The signaling that indicates when a button has been pressed can be set acoustically and optically.

The signaling that indicates when a button has been pressed is set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st		Press Λ or V until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press Λ or V until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
5th		Press Λ or V to select a registration unit that is a code pad. In this case, for example, GAR.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
6th		Press OK.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
7th		Press Λ or V until **ACOUSTIC BUTTONS** is selected.	Code pad Opening signal : Y Acoustic buttons : N Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
8th		Press OK until the desired acoustic signal setting is selected: Y = enabled, N = disabled.	Code pad Opening signal : Y Acoustic buttons : N Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
9th		Press Λ or V until **LUMINOUS BUTTONS** is selected.	Code pad Opening signal : Y Acoustic buttons : N Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
10th		Press OK until the desired optical signal setting is selected: Y = enabled, N = disabled.	Code pad Opening signal : Y Acoustic buttons : N Luminous buttons : N Illumination : Y Brightn. thresh.: 50% Brightness : 33%
11th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The signaling that indicates when a button has been pressed is set. The system displays the main menu.

Enabling or disabling back-illumination

The back-illumination on the code pad can be enabled or disabled.

NOTICE

Significance of enabling back-illumination: You must enable back-illumination if you wish to set the brightness threshold and brightness of the back-illumination.

The back-illumination is enabled or disabled using the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st		Press Λ or V until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press Λ or V until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
5th		Press ^ or v to select a registration unit that is a code pad. In this case, for example, GAR.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
6th		Press OK.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
7th		Press ^ or v until **ILLUMINATION** is selected.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
8th		Press OK until the desired setting is selected: Y = enabled, N = disabled.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
9th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The back-illumination on the code pad is enabled or disabled. The system displays the main menu.

Setting the brightness threshold of the back-illumination

The brightness threshold for switching on the automatic back-illumination can be set.

NOTICE

Requirement for the brightness threshold: You can only set the brightness threshold of the back-illumination if you have enabled the back-illumination on the code pad.

See “Enabling or disabling back-illumination”, page 63.

The brightness threshold can be set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st		Press Λ or V until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press Λ or V until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
5th		Press Λ or V to select a registration unit that is a code pad. In this case, for example, GAR.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
6th		Press OK.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
7th		Press Λ or V until **BRIGHTN. THRESH.** is selected.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
8th		Press OK until the desired percentage value is displayed: 10% = highly insensitive, 100% = highly sensitive, 50% = default setting.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 80% Brightness : 33%
9th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The brightness threshold of the back-illumination is set. The system displays the main menu.

NOTICE

Gradual approach: Alter the setting gradually to approach the required brightness threshold. The system responds very sensitively.

Setting the brightness of the back-illumination

The back-illumination brightness can be set.

NOTICE

Requirement for the back-illumination brightness: You can only set the brightness of the back-illumination if you have enabled the back-illumination on the code pad.

See “Enabling or disabling back-illumination”, page 63.

The brightness can be set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st	^/< / v/>	Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	^/< / v/>	Press ^ or v until **REGISTRATION UNIT/KNX** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th	OK	Press OK.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter

Step	Action	Description	Display
5th		Press ∧ or ∨ to select a registration unit that is a code pad. In this case, for example, GAR.	Registration unit/KNX HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - KNX - converter
6th		Press OK.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
7th		Press ∧ or ∨ until **BRIGHTNESS** is selected.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 33%
8th		Press OK until the desired percentage value is displayed: 00% = off, 33% = 33% on (default setting), 66% = 66% on, 100% = 100% on.	Code pad Opening signal : Y Acoustic buttons : Y Luminous buttons : Y Illumination : Y Brightn. thresh.: 50% Brightness : 100%
9th		Press ESC 3 times.	Save user Delete user Log Special mode Settings Reset

✓ The back-illumination brightness is set. The system displays the main menu.

KNX converter

You can set 10 KNX events for your *ekey home converter KNX RS-485*.

See *ekey converter KNX RS-485 ID224* operating instructions, chapter entitled "Using *ekey multi control panel DRM*".

Storing users and identification methods

The system enables a maximum of 297 identification methods – made up of 99 fingers, 99 RFID transponders, and 99 user codes – to be stored for a maximum of 99 users.

Storing identification methods enables the following actions to be taken:

- Store one identification method for one user
- Assign a key to this identification method.

NOTICE

2 fingers per key: Store at least 2 fingerprints per key; one from each hand.

Setting the basic settings for the user

You must start by setting the basic settings for the user, regardless of the registration units integrated in the system.

The basic settings for the user are set via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Defining the user name

Step	Action	Description	Display
1st	/	Press ∧ or ∨ until **SAVE USER** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Save user Name K 01U ----- 02U ----- 03U ----- 04U ----- 05U -----

Step	Action	Description	Display
3rd		Press Λ or V to select the user name.	Save user Name K 01U - - - - - 02U - - - - - 03U - - - - - 04U - - - - - 05U - - - - -
4th		Press OK.	03U Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
5th		Press Λ until the user name is selected.	03U Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
6th		Press OK.	03U Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
7th		Press Λ or V to select the first character.	S3U Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
8th		Press OK.	SAU Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
9th		Repeat steps 7 and 8 another 8 times until the user name is complete. Blank spaces are allowed.	SAMPNAME Enabled Always K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -

Setting the user status

Step	Action	Description	Display
10th		Press V to view the user status.	SAMPNAME Enabled Always K Finger R C K1 ---------- - - K2 ---------- - - K3 ---------- - -
11th		Press OK. You can select from either Enabled or Disabled. This allows you to define whether the user is enabled or disabled. A disabled user's identification methods are disabled but still stored in the system. By pressing OK, you can switch between Enabled and Disabled.	SAMPNAME Enabled Always K Finger R C K1 ---------- - - K2 ---------- - - K3 ---------- - -

Setting accessing authorizations for the user

Step	Action	Description	Display
12th		Press V to view the time zone selection.	SAMPNAME Enabled Always K Finger R C K1 ---------- - - K2 ---------- - - K3 ---------- - -
13th		Press OK. You can select from Always, Time zone A, and Time zone B. By pressing OK, you can switch between these three time zones. If Always is selected, the user is granted access in perpetuity. Always is the default setting. Time zone A and Time zone B can be set in **TIME DATA**.	SAMPNAME Enabled Time zone B K Finger R C K1 ---------- - - K2 ---------- - - K3 ---------- - -

Selecting a key

Step	Action	Description	Display
14th		Press Λ or V to select the key for which you wish to store the identification methods.	SAMPNAME Enabled Time zone B K Finger R C K1 - - - - - - - - - - - - K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -
15th		Press OK. The identification methods available for selection are displayed.	Store SAMPNAME Finger RFID User code Finger is only available for selection if the system contains at least one finger scanner. RFID is only available for selection if the system contains at least one RFID finger scanner. User code is only available for selection if the system contains at least one code pad.

Selecting identification methods

Step	Action	Description	Display
16th		Press Λ or V to select an identification method.	Store SAMPNAME Finger RFID User code
17th		Press OK. The display varies according to the identification method selected.	Finger: SAMPNAME le middle finger le index finger le thumb ri thumb ri index finger ri middle finger RFID transponder: Hold up RFID transponder or press [ESC]  Status LED lights up orange. User code: Enter user code or press [ESC]  Status LEDs light up green.

✓ The basic settings for the user have been set. You must now store the identification method.

Storing the identification method

The identification method to be stored depends on the registration units integrated in the system.

The identification method is stored using the procedure starting from step 17 of the previous table. The procedure differs according to the identification method selected:

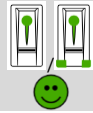
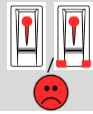
See “Finger”, page 74.

See “RFID transponders”, page 77.

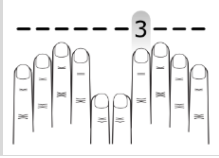
See “User code”, page 80.

Finger

Step	Action	Description	Display
1st	∧/< / ∨/>	Press ∧ or ∨ to select a finger in the finger list.	SAMPNAME le middle finger le index finger le thumb ri thumb ri index finger ri middle finger
2nd	OK	Press OK. The control panel is ready to store the identification method. You have 60 s to perform the action shown on the display. Otherwise, the display will automatically switch to the **SAVE USER** window.	Swipe finger or press [ESC]  Status LED lights up orange.

Step	Action	Description	Display	
3rd		Swipe the finger over any sensor to store it. See "Correct operation of the finger scanner", page 11. Repeat this step at least twice. Between each individual finger swipe, the finger scanner lights up orange if the finger storing process is not complete. After the first finger has been swiped once over the sensor, no more than 60 s may pass between each subsequent swipe. Otherwise, the finger storing process will be aborted.		Status LED lights up green/All LEDs light up green.
				Status LED and left-hand function LED light up green.
				Status LED lights up red/All LEDs light up red.
				Status LED lights up green, function LEDs light up red.
				Status LED lights up green, left-hand function LED lights up red.
		The quality of the fingerprint is acceptable. However, it may be possible to improve the quality by swiping the finger again. Press OK if you want to end the storing process.	-	
		The quality of the fingerprint is poor or the finger was not recognized. Swipe the finger over the sensor again.	-	
4th	No action required	-	SAMPNAME Enabled Time zone B K Finger R C K1 ---X------ - - K2 ---------- - - K3 ---------- - -	
				Status LED lights up blue.

Storing more fingers for the same user

Step	Action	Description	Display
5th	/ .	To store more fingers, see step 14 onwards in "Setting the basic settings for the user", page 69. If you select a finger that has already been stored for another key, you can apply this finger to the newly selected key using OK. This finger will then no longer apply to the old key.	SAMPNAME Enabled Time zone B K Finger R C K1 - - - X- - - - - - - - K2 - - X- - - - - - - - K3 - - - - - - X- - - - -   Status LED lights up blue.
6th	ESC	Press ESC. The stored keys can be read once the process of storing users is complete.	Save user Name K SAMPNAME 123 - - SIMON 1- - - M 03U - - - - - 04U - - - - - 05U - - - - -
7th	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

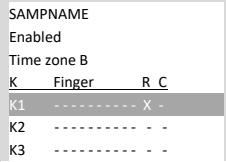
✓ The fingers are stored. The system displays the main menu.

NOTICE

Testing fingers: Test the newly stored fingerprints on all finger scanners immediately.

NOTICE

RFID function: You can only store an RFID transponder for finger scanners with an RFID function.

Step	Action	Description	Display	
1st		Hold the RFID transponder over the finger swipe area of the finger scanner at a distance of 1 to 5 cm. You have 60 s to perform the action. Otherwise, the display will automatically switch to the **SAVE USER** window. You cannot store an RFID transponder that you have already stored for another user.		All LEDs light up green. Short beep.
				Status LED lights up orange. Function LEDs light up green. Long beep.
				Status LED lights up red. Long beep.
		The RFID transponder was not stored. Either you did not hold the RFID transponder over the finger scanner for long enough, or it was not close enough, or this RFID transponder has already been stored. Repeat the procedure beginning at step 14 in “Setting the basic settings for the user”, page 69.		-
2nd	No action required.	-		
				Status LED lights up blue.

Storing more RFID transponders for the same user

Step	Action	Description	Display
3rd	/	To store more RFID transponders, see step 14 onwards in "Setting the basic settings for the user", page 69. If you select an RFID transponder that has already been stored for another key, you can apply this RFID transponder to the newly selected key using OK. This RFID transponder will then no longer apply to the old key.	SAMPNAME Enabled Time zone B K Finger R C K1 ---------- X - K2 ---------- - - K3 ---------- X -  Status LED lights up blue.
4th	ESC	Press ESC. The stored keys can be read once the process of storing users is complete.	Save user Name K SAMPNAME 1- 3 - - SIMON 1- - - M 03U - - - - - 04U - - - - - 05U - - - - -
5th	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The RFID transponders are stored. The system displays the main menu.

NOTICE

Finger scanner replacement:

- If there is only one finger scanner in the system and it is replaced, the RFID transponders must be stored again.
- If there are at least 2 finger scanners in the system, the RFID transponders will not need to be stored again. You must synchronize the identification features in order to use the RFID transponders again.

See "Synchronizing identification features", page 100.

NOTICE

Control panel replacement: When the control panel is replaced, the stored RFID transponders can only be used again if the new control panel has the same serial number as the old one. More information about this can be obtained from your dealer.

NOTICE

Testing RFID transponders: Test newly stored RFID transponders on all finger scanners immediately.

User code

Step	Action	Description	Display	
1st		Enter the required 4 to 8-digit user code on the keypad. The digits in the user code cannot all be the same; at least one of them must be different. You have 60 s to perform the action. Otherwise, the display will automatically switch to the **SAVE USER** window. You cannot store a user code that you have already stored for another user.		-
2nd		Press ☑.		Status LED lights up green on the right.
				Status LEDs light up red.
		The user code is already present. Repeat the procedure beginning at step 14 in “Setting the basic settings for the user”, page 69.		-
3rd		Enter the required user code again on the keypad.	-	-
4th		Press ☑.		Status LEDs light up green.
				Status LEDs light up red.
		The two entries do not match. The user code was not stored. Repeat the procedure beginning at step 14 in “Setting the basic settings for the user”, page 69.	-	-

Step	Action	Description	Display
5th	No action required	-	SAMPNAME Enabled Time zone B K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - - - K3 - - - - - - - - - - - -  Status LEDs are off.

Storing more user codes for the same user

Step	Action	Description	Display
6th		To store more user codes, see step 14 onwards in "Setting the basic settings for the user", page 69. If you select a user code that has already been stored for another key, you can apply this user code to the newly selected key using OK. This user code will then no longer apply to the old key.	SAMPNAME Enabled Time zone B K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - X K3 - - - - - - - - - - - -  Status LEDs are off.
7th		Press ESC. The stored keys can be read once the process of storing users is complete.	Save user Name K SAMPNAME 12 - - - SIMON 1- - - M 03U - - - - - 04U - - - - - 05U - - - - -
8th		Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The user codes are stored. The system displays the main menu.

NOTICE

Testing user codes: Test the newly stored user codes on all code pads immediately.

Setting special mode

You can disable the time zones for a limited date range. To do this, you have a choice of two special modes:

Special mode	Description
Only Always users	All users you assigned with Time zone A or Time zone B no longer have access. The users you assigned as Always continue to have unlimited access rights.
All users Always	All users in the system have unlimited rights. Regardless of the assigned time zones, all users have access at all times.

The system is set by default to Normal mode. Normal mode is enabled for an indeterminate time period. For normal mode, you do not have to carry out any date settings.

Special modes can be set via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st	^/<, v/>	Press ^ or v until **SPECIAL MODE** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Normal mode day .mon .year 18.07.2016 - 18.07.2016
3rd	^/<, v/>	By pressing ^ or v, you can switch between Normal mode, All users Always, and Only Always users.	Only Always users day .mon .year 18.07.2016 - 18.07.2016

Step	Action	Description	Display
4th	OK	Press OK.	Only Always users day .mon .year 18.07.2016 - 18.07.2016
5th	^/< / v/>	Press ^ or v to select the start day.	Only Always users day .mon .year 20.07.2016 - 18.07.2016
6th	OK	Press OK.	Only Always users day .mon .year 20.07.2016 - 18.07.2016
7th	^/< / v/>	Repeat steps 5 and 6 another 5 times to set the day, month, and year for the start and end date of the special mode.	Save user Delete user Log Special mode Settings Reset

✓ The required special mode has been set. The system displays the main menu.

Use

Opening a door

The primary purpose of the product is to open doors. This can be carried out using a finger scanner, an RFID transponder, a code pad, or a digital input. The system is in normal mode.

With a finger scanner

Step	Action	Description	Display	
1st		Swipe a stored finger over the sensor. See “Correct operation of the finger scanner”, page 11.		Status LED lights up green.
				Status LED lights up red.
		The finger was not recognized. Repeat step 1.		-
2nd	No action required.	The door opens.		Status LED lights up blue.

The system is in normal mode.

NOTICE

Only in the case of an RFID function: You can only open a door using an RFID transponder for finger scanners with an RFID function.

Step	Action	Description	Display	
1st		Hold a stored RFID transponder up to the finger swipe area of the finger scanner.		Status LED lights up green. Short beep.
				Status LED lights up red. Long beep.
		The RFID transponder was not recognized. Repeat step 1 with a valid RFID transponder. Alternatively, hold the RFID transponder closer to the finger scanner or for a longer period of time.		-
2nd	No action required.	The door opens.		Status LED lights up blue.

The system is in normal mode.

Using a code pad

Step	Action	Description	Display	
1st		Enter a stored user code on the keypad.		
2nd		Press ☑.		Status LEDs light up green.
				Status LEDs light up red.
		The user code was not recognized. Repeat the procedure beginning at step 1.		-
3rd	No action required.	The door opens.		Status LEDs are off.

The system is in normal mode.

NOTICE

Lock caused by incorrect entry: If the code is entered incorrectly three times, there will be a 1-minute lock. If the code is entered incorrectly another 3 times, there will be a 15-minute lock. Each additional incorrect entry will result in a further 15-minute lock. You can unlock the code pad again by entering the security code in the control panel.

Using a digital input (request-to-exit button)

You can also open the door using the request-to-exit button of a digital input on the control panel. The relay switches for the defined relay switch time. If the digital input is enabled for longer than the defined relay switch time, the relay switches for as long as the digital input is enabled.

Deleting individual keys from a user

You can delete individual keys from a user.

The deletion of individual keys from a user can be performed via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st	∧ / ∨	Press ∧ or ∨ until **DELETE USER** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Delete user Name K SAMPNAME 1 -3 - - SIMON 1 - - 4M 03U - - - - - 04U - - - - - 05U - - - - -
3rd	∨	Press ∨ until the desired user is selected.	Delete user Name K SAMPNAME 1 -3 - - SIMON 1 - -4M 03U - - - - - 04U - - - - - 05U - - - - -
4th	OK	Press OK.	SIMON Delete All KNX K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - - K3 - - - - - - - - - - - K4 - - - - - - X - - - - -
5th	∧ / ∨	Press ∧ or ∨ to select the key you wish to delete.	SIMON Delete All KNX K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - - K3 - - - - - - - - - - - K4 - - - - - - X - - - - -

Step	Action	Description	Display
6th	OK	Press OK.	SIMON Key 4 Delete? [OK]
7th	OK	Press OK.	Delete user Name K SAMPNAME 1-3 - - SIMON 1 - - -M 03U - - - - - 04U - - - - - 05U - - - - -
8th	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The individual key has been deleted. The system displays the main menu.

Delete user

Deleting a user always pertains to the user name and all identification methods of the user.

It is also possible to delete individual keys from a user.

See “Deleting individual keys from a user”, page 87.

Users are deleted via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st	/	Press Λ or V until **DELETE USER** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Delete user Name K____ SAMPNAME 1 -3 - - SIMON 1 - -4M 03U - - - - - 04U - - - - - 05U - - - - -
3rd		Press V until the desired user is selected.	Delete user Name K____ SAMPNAME 1 -3 - - SIMON 1 - -4M 03U - - - - - 04U - - - - - 05U - - - - -
4th	OK	Press OK.	SIMON Delete All KNX K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - - K3 - - - - - - - - - - - K4 - - - - - - X - - - - -
5th		Press Λ until All is selected.	SIMON Delete All KNX K Finger R C K1 - - - - - - - - - - X K2 - - - - - - - - - - - K3 - - - - - - - - - - - K4 - - - - - - X - - - - -

Step	Action	Description	Display
6th	OK	Press OK.	SIMON Delete? [OK]
7th	OK	Press OK. The deletion process is executed.	Delete user Name K SAMPNAME 1 -3 - - 02U - - - - - 03U - - - - - 04U - - - - - 05U - - - - -
8th	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The user has been deleted. The system displays the main menu.

Accessing the log

You can access the last 50 access actions with **LOG**. The access actions are labeled with codes:

Action code	Access action	
0	Access by identification method granted.	
1	Access by request-to-exit button granted.	
2	Access denied because the user has a time zone restriction.	
3	Access denied because the user has been disabled.	
4	Access denied because the identification method was not recognized.	
6	Control panel restart.	
8	Access denied because the identification method was rejected. The rejection relay was switched. There are four possible reasons why an identification method may be rejected:	The identification method is not recognized
		The identification method has not been granted access in this time slot
		The identification method or the user has been disabled
		The identification method is not able to take any action on this registration unit.
9	Access by identification method granted. In the case of digital input 1, request-to-exit mode is not set; instead, one of the other three available modes is set (Feedback, Blocking R1, Blocking R1+R2, Blocking R1+R2+R3).	
A	Access via relay 1 denied. Digital input 1 was enabled.	
B	Access via relay 2 denied. Digital input 1 was enabled.	
C	Access via relay 3 denied. Digital input 1 was enabled.	
D	Access via request-to-exit button with digital input 2 or 3 granted. Digital input 1 was enabled.	

The log shows who was granted or denied access and when by which registration unit. If access was granted, it also displays which relays were switched.

NOTICE

Backing up log data: You can also back up the log data to a computer for further processing using the *ekey home/multi servicekit*.

See Chapter 10 of the document "*ekey multi* ID19 operating instructions" (the other chapters of this document no longer apply). You can find this document on the DVD for the *ekey home/multi servicekit*.

Log data can be accessed via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st	∧ / ∨	Press ∧ or ∨ until **LOG** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK. The list is sorted chronologically. The most recent entry is always at the top. You can use the ∧ and ∨ to move within the list.	Date User RA Rel MMDDhhmm UC1234 05071034 SAMP 22 05070930 - - - 24 05061745 SIMON 10 ▮ 05061432 SIMON 11 ▮ User: Only the first 5 characters MM: Month DD: Day hh: Hours mm: Minutes RU: Registration unit 1-4 (read vertically) AC: Action code 0-9, A-D (read vertically) Rel: Switched relay (1-4)
3rd	ESC	Press ESC.	Save user Delete user Log Special mode Settings Reset

✓ The log data has been displayed. The system displays the main menu.

Retrieving the firmware versions and number of identification features

You can retrieve to the firmware version number and the number of stored identification features from any individual device in the system.

You can retrieve this data via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st		Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press ∧ or ∨ until **VERSIONS** is selected.	Settings Registration unit/KNX FS/KP assignment Test mode Security code Language Versions
4th		Press OK.	Versions 4REL 2.01.79.18 005 RU01 6.14.06.29 001 RU02 3.00.06.22 004 2.01.79.18: Software version number 005: Number of stored identification methods

Step	Action	Description	Display
5th	OK / ESC	Press OK once or ESC twice.	Save user Delete user Log Special mode Settings Reset

The firmware versions and number of identification methods have been displayed.

Adding registration units

From **FS/KP ASSIGNMENT**, you can add new registration units. You can incorporate up to four registration units in the system.

Installing new registration units

ATTENTION

Property damage in the event of incorrect mounting and wiring: The system devices are operated using electricity.
They could be destroyed if they are mounted and wired incorrectly.
Mount and wire the system devices correctly before connecting the power.

Mount the system in accordance with the supplied mounting instructions.

Wire the system in accordance with the supplied wiring diagram.

NOTICE

Bus system and termination: The *ekey multi CP DRM 4* uses an RS-485 data connection for communication with the registration units. To ensure that the data transfer functions reliably in the *ekey multi* system, you must wire the bus system properly and connect the termination correctly.

Step	Action	Display	
1st	Ensure safe installation of the devices. Close the covers.		Status LED of the finger scanner flashes orange: Default setting.
			Status LEDs of the code pad flash yellow alternately: Default setting.

Activating new registration units

Activation links the control panel with the new registration units.

New registration units can be activated via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Searching for new registration units

Step	Action	Description	Display
1st	∧/< / ∨/>	Press ∧ or ∨ until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	∧/< / ∨/>	Press ∧ or ∨ until **FS/KP ASSIGNMENT** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment

Step	Action	Description	Display
4th	OK	Press OK. The registration units which are already installed are displayed.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - - Search FS/KP
5th	^/< / v/>	Press ^ or v until Search FS/KP is selected.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 RU03 - RU04 - - Search FS/KP
6th	OK	Press OK. A point lights up each time a new registration unit is found: . E.g., RU03 and RU04 have been found.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 RU03 -. RU04 -. - Search FS/KP
			 Status LED of the finger scanners that have already been installed flashes orange.
			 Status LEDs of the code pads that have already been installed flash yellow alternately.

Selecting a new registration unit

Step	Action	Description	Display
7th	^/< / v/>	Press ^ or v to select one of the new registration units.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 RU03 -. RU04 -. - Search FS/KP
8th	OK	Press OK.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 RU03 -. RU04 - - Search FS/KP

Defining the name of the new registration unit

Step	Action	Description	Display
9th		Press Λ or V to select the first character in the name of the new registration unit. E.g., S.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 SU03 -. RU04 -. - Search FS/KP
10th		Press OK.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 SU03 -. RU04 -. - Search FS/KP
11th		Repeat steps 9 and 10 another 3 times until the name of the new registration unit is complete. E.g., SE for side entrance. Blank spaces are allowed.	New finger scanner: Swipe finger on: SE or press [ESC] New code pad: Enter user code on: SE or press [ESC]

Activating the new registration unit

Step	Action	Description	Display
12th	Finger scanner: 	Swipe any finger over the finger scanner. See "Correct operation of the finger scanner", page 11.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 SE - 80222407160123 RU04 -. - Search FS/KP  Status LED of the new finger scanner flashes orange.
	Code pad:  	Enter any code on the keypad and press ✓.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 SE - 80212148154567 RU04 -. - Search FS/KP  Status LEDs of the new code pad flash yellow alternately.

Activating additional registration units

Step	Action	Description	Display
13th		Repeat steps 7 to 12 for each additional registration unit. It is not possible to assign two positions to one registration unit.	FS/KP assignment HD -.80222405160326 GAR -.80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP Finger scanner:  Status LEDs of the new finger scanners flash orange. Code pad:  Status LEDs of the new code pads flash yellow alternately.
14th		Press ESC.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code:  Status LEDs of the new finger scanners light up blue.  Status LEDs of the new code pads are switched off.

✓ The new registration units have been activated and are in normal mode.

You must now synchronize the stored identification features.

You must always synchronize the stored identification features in the following cases:

- You have added a new registration unit to the system
- You have replaced a registration unit in the system.

If you do not carry out a synchronization, identification features will not be recognized and access will be denied.

NOTICE

Required information: Before you begin the synchronization, determine the number of stored identification features on each registration unit from **VERSIONS**. See "Retrieving the firmware versions and number of identification features", page 93. You will need this information for the synchronization.

NOTICE

Selecting the registration unit: It is only possible to synchronize identification features between registration units of the same type. A finger scanner can only be synchronized with another finger scanner and a code pad with another code pad. If a finger scanner with an RFID function is synchronized with a finger scanner without an RFID function, the RFID data will be synchronized but the new finger scanner will not be able to use it.

ATTENTION

Deleting identification features in the case of synchronization with a newly integrated registration unit: No data is stored on a newly integrated registration unit.
If you perform synchronization with a newly integrated registration unit, it will not be possible to transfer any data. All identification features in the system will subsequently be deleted.
Do not select a newly integrated registration unit for synchronization. Select the registration unit with the highest number of stored identification features.

The identification features are synchronized via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st		Press Λ or V until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd		Press Λ or V until **FS/KP ASSIGNMENT** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th		Press OK. The installed registration units are displayed.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
5th		Press Λ or V to select the old registration unit that has stored the highest number of identification features. The identification features are distributed from this registration unit to the new registration units.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
6th		Press OK.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP

Step	Action	Description	Display
7th	OK	Press OK 4 times.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
8th	^ / v	Press ^ or v until S is displayed.	FS/KP assignment HD - 80222405160326 GAR S80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
9th	OK	Press OK.	Synchronization ▉
10th	No action required.		FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP  Status LEDs of the finger scanners flash orange.  Status LEDs of the code pads flash yellow alternately.
11th	ESC	Press ESC twice.	Save user Delete user Log Special mode Settings Reset  Status LEDs of the finger scanners light up blue.  Status LEDs of the code pads are switched off.

✓ The identification features have been synchronized. The system displays the main menu.

NOTICE

Updating the master key plan: After installing a new registration unit, the master key plan remains unchanged. Keys are not automatically assigned to the new registration units. Change the master key plan according to their new usage conditions or requirements.

See “Changing the predefined master key plan”, page 46.

Removing registration units

From **FS/KP ASSIGNMENT**, you can remove registration units from the system.

You can remove registration units from the system via the main menu.

Enter the security code to access the main menu.

See "Entering the security code", page 28.

Step	Action	Description	Display
1st	^/< / v/>	Press ^ or v until **SETTINGS** is selected.	Save user Delete user Log Special mode Settings Reset
2nd	OK	Press OK.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
3rd	^/< / v/>	Press ^ or v until **FS/KP ASSIGNMENT** is selected.	Settings Time data Master key plan Switching duration Digital input Registration unit/KNX FS/KP assignment
4th	OK	Press OK. The installed registration units are displayed.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
5th	^/< / v/>	Press ^ or v to select the registration unit you wish to remove.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP

Step	Action	Description	Display
6th	OK	Press OK.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
7th	OK	Press OK 4 times.	FS/KP assignment HD - 80222405160326 GAR - 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
8th	^/< / v/>	Press ^ or v until D is displayed.	FS/KP assignment HD - 80222405160326 GAR D 80212126161413 SE - 80222407160123 GD - 80212148154567 - Search FS/KP
9th	OK	Press OK.	FS/KP assignment HD - 80222405160326 RU02 - SE - 80222407160123 GD - 80212148154567 - Search FS/KP
10th	ESC	Press ESC.	System ok 297 Fr 01.07.2016 17:37:15 80132445110622 Code:

✓ The registration unit has been removed and is in normal mode.

NOTICE

Effects of removing all registration units:

- All user data will be deleted.
- You will need to initiate the search for registration units again and activate at least one registration unit in order to exit the **FS/KP ASSIGNMENT** window.

Resetting the system to default settings

The system is reset to its default settings. Your system is then in the condition in which it was delivered to you once more.

NOTICE

Effect of resetting to the default settings:

- All users, fingers, RFID transponders, and user codes are permanently deleted.
- The time zones are permanently deleted.
- The security code is set to 99.
- The control panel and registration units are no longer coupled together.
- The switching duration is set to 3 s.
- The LED intensity of the finger scanners is reset to LED dimmed.
- Back-illumination is enabled for the code pad. The brightness threshold of the back-illumination is reset to 50% and the brightness value of the back-illumination to 33%.
- The acoustic and optical signaling that indicates when a button has been pressed, as well as the acoustic signal for door opening are both enabled again using the code pad.
- CV KNX available is reset to N in the KNX settings.
- The log data is deleted.
- The special mode is reset to normal mode.
- The master key plan is reset to a predefined master key plan.
- Digital input 1 functions by default as a request-to-exit button for relay 1.

Settings are reset to the default via the main menu.

Enter the security code to access the main menu.

See “Entering the security code”, page 28.

Step	Action	Description	Display
1st		Press ∧ or ∨ until **RESET** is selected.	Save user Delete user Log Special mode Settings Reset
2nd		Press OK.	Reset Reset to default settings Code: 9
3rd		Press < or > to select the first digit of the security code.	Reset Reset to default settings Code: 1
4th		Press OK.	Reset Reset to default settings Code: 19
5th		Press < or > to select the second digit of the security code.	Reset Reset to default settings Code: 12
6th		Press OK.	Reset Reset to default settings Code: 12_
7th		Repeat steps 5 and 6 until you have selected all the digits in the security code.	Reset Reset to default settings Code: 1234_

Step	Action	Description	Display
8th	OK	Press OK.	Reset Reset to default settings Code: 1234_ ▉
9th	No action required.	The control panel displays the language selection.	4REL 2.01.78.28 Deutsch English Italiano Français Slovenščina Čeština  Status LED of the finger scanner flashes orange.  Status LEDs of the code pad flash yellow alternately.

✓ The system has been reset to its default settings. You can now reactivate the system.

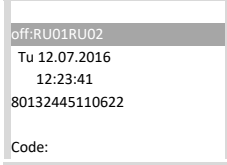
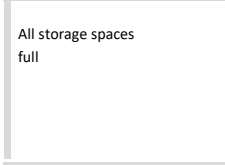
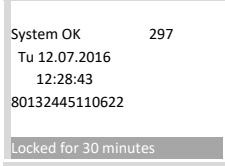
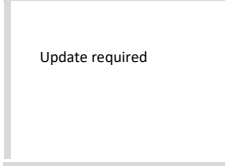
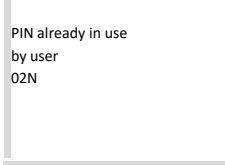
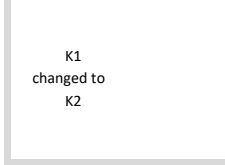
See “Activating the system”, page 21.

Updating the software

We are working to improve our products and add new functions all the time. Correspondingly, updates are made available for the registration unit and control panel software. More information about this can be obtained from your dealer.

Error displays and troubleshooting

Control panel

Display	Meaning	Remedy
	No data connection to the registration units.	Check the wiring and the power supply.
	99 fingers, RFID transponders, or user codes have already been stored. The memory is full.	Delete fingers, RFID transponders, or user codes.
	An incorrect security code has been entered 3 times. The system is locked for 30 minutes.	After 30 minutes, enter the correct code. The 30-minute lock will only count down if the power supply and data connection are present throughout.
	An update is required.	The control panel requires a firmware update.
	The selected user code is already in use by another user. The corresponding user name is displayed. In the example: 02N.	Select another user code.
	The selected user code was already in use by the same user for another key. The selected user code is now only valid for the most recently selected key.	If you would like to continue using this user code for the initially selected key, choose another key that has not yet been used for the new key.

Display	Meaning	Remedy
Time zone A Wrong time entry Reset MTWTFSS 23:00 -00:05 ------ 00:00 -00:00 ------- 00:00 -00:00 ------- 00:00 -00:00 -------	You cannot set times which go over midnight within a time slot.	Define times between 00:00 and 23:59 for this time slot.
01N User code Key 3 Not defined	The registration unit detects a key that is not defined for this registration unit in the master key plan.	Amend the master key plan or use another key that is stored for this registration unit.
Unknown	The identification feature was not recognized.	Check the identification features for the user in question.

If these remedies do not solve the problem, contact your dealer. If the system has to be returned to ekey biometric systems GmbH, ensure that it is correctly packaged. Improper packaging can lead to the warranty being voided.

Finger scanner

Display		Meaning	Remedy
	Status LED lights up red.	The finger was not recognized.	Swipe your finger once again over the sensor or check the **VERSIONS** menu to see how many fingerprints are stored on each finger scanner. Carry out synchronization if the number of fingers is different.
	All LEDs light up red for 1 minute.	System lock. You used an unrecognized identification method 10 times in a row.	Wait for 1 minute. The system is then in normal mode.
	Status LED lights up green, but relay does not switch.	Incorrect device assignment.	Perform the assignment again.
	Status LED flashes orange.	No bus connection to the control panel.	Check the wiring or activate the device.
	Status LED lights up green, function LEDs flash red.	The finger was recognized but access was denied: Time zone restriction on this finger scanner, Blocking R1 mode at digital input 1, non-usable key, or disabled user.	Check the settings for the user, the digital input, or the master key plan.
	Status LED alternates between flashing red and green.	The sensor of the non-RFID finger scanners is soiled or wet.	Clean and/or dry the sensor.
	Status LED lights up blue, left-hand function LED flashes red/green alternately.	The sensor of the RFID finger scanners is soiled or wet.	Clean and/or dry the sensor.

If these remedies do not solve the problem, contact your dealer. If the system has to be returned to ekey biometric systems GmbH, ensure that it is correctly packaged. Improper packaging can lead to the warranty being voided.

Code pad

Display		Meaning	Remedy
	Status LEDs light up red.	The user code was not recognized.	Enter the user code on the keypad again.
	Status LEDs light up red.	The numbers in the desired user code are all the same. E.g.: 1111, 3333.	Enter a new user code containing at least one number that is different from the others. E.g.: 1115, 3733.
	Status LEDs light up red.	The desired user code is too short or too long. E.g.: 321, 987654321.	Enter a new user code with a minimum of 4 digits and a maximum of 8 digits. E.g.: 4321, 87654321.
	Status LED lights up red on the right.	An incorrect user code has been entered 3 times. 1-minute or 15-minute system lock.	After the 1-minute or 15-minute lock, enter a correct user code. The 1-minute or 15-minute lock will only count down if the power supply and data connection are present throughout.
	Status LEDs flash yellow alternately.	No bus connection to the control panel.	Check the wiring or activate the device.
	Status LEDs light up green first and then red	The user code was recognized but access was denied: Time zone restriction on this code pad, Blocking R1 mode at digital input 1, non-usable key, or disabled user.	Check the settings for the user, the digital input, or the master key plan.
	Status LEDs light up green, but relay does not switch.	Incorrect device assignment.	Perform the assignment again.

If these remedies do not solve the problem, contact your dealer. If the system has to be returned to ekey biometric systems GmbH, ensure that it is correctly packaged. Improper packaging can lead to the warranty being voided.

Maintenance

The system is largely maintenance-free.

The sensor surface of the finger scanner is essentially self-cleaning due to repeated use (swiping of fingers). However, if the finger scanner becomes soiled, clean it gently with a damp (not wet), non-abrasive cloth. Q-tips, microfiber cloths, and glasses-cleaning cloths are suitable for this purpose. Cotton-containing materials, paper towels, tissues, kitchen sponges, damp dish towels, and kitchen roll are not suitable. Use clean water without adding detergent. Treat the sensor surface with care.

For safety, clean fingerprints and dirt off the code pad from time to time using a damp (not wet), non-abrasive cloth. Use clean water without adding detergent.

Disposal

Pursuant to Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment, electrical and electronic equipment supplied after August 13, 2005 is to be recycled. It must not be disposed of with household waste. As disposal regulations within the EU can differ from country to country, please contact your dealer for further information as necessary.

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