Glutz Home Biometrics
Instruction manual

Glutz

Dear customer

Thank you for your interest in the Glutz Home Biometrics electronic access control system.

Read this instruction manual carefully to ensure optimal use of Glutz Home Biometrics. In case of enquiries, please contact your specialist dealer or contact the manufacturer directly.

IMPRINT

Version:	Instruction manual Home Biometrics
Index:	MA-10121
Article number	Art. no. 272101(DE) Art. no. 272348(FR) Art. no. 272349(EN)
Release date:	2017-06-28
Reviewed:	Product Management Glutz AG
Feedback:	info@glutz.com
Status:	APPROVED
Original language:	German

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1. General information

1.1 Target group

This document is intended for persons who:

- commission the system
  (electrical installers, specialist personnel, etc.)

- maintain and manage the system
  (owners, administrators, technicians, etc.)

This instruction manual only describes the commissioning of the Glutz Home Biometrics devices. For information about the operation of eAccess devices and/or the eAccess desktop software, please refer to the appropriate manuals.

1.2 Intended use

Your Glutz Home Biometrics system is an access system and must only be used for the purpose intended by the manufacturer, the unlocking and locking of doors. Any other use is considered as improper.

The Glutz Home Biometrics system is designed for specific areas of application (permissible environmental conditions are described in the chapter Technical data).

1.3 Assembly instructions

Assembly of devices
The assembly of the devices must be carried out by a qualified expert.
The assembly instructions are included in the scope of delivery.

1.4 Danger notices

Danger to persons

WARNING

Potentially imminent danger
Identifies a potentially threatening danger that can lead to severe bodily injuries or death.

CAUTION

Potential danger
Identifies a potentially threatening danger that can lead to minor bodily injuries.

Danger to property

NOTE

Damage to the product
Identifies a situation in which disregard of instructions can damage the device or impair device function.

NOTE

Information for use that helps optimise use of the device and improve operation of the device.

Tips and tricks for daily use.

1.5 Abbreviations and terminology

SM	Surface-Mounted
BT	Bluetooth
FAR	False Acceptance Rate
FRR	False Rejection Rate
FS	Finger Scanner
RFID	Radio Frequency IDentification
CU	Control Unit
FM	Flush-Mounted

1.6 Symbols

1.	Step-by-step instructions
	 References to other sections of this manual
	 References to the assembly instructions
	 References to the connection diagram
•	Lists without a specified sequence, 1st level

2. Safety instructions

WARNING

Life-threatening danger due to electricity

All Glutz Home Biometrics devices must be operated with safety extra-low voltage. Only use the power supply units provided by Glutz AG.

Disregarding this instruction entails life-threatening danger due to electric shock.

The electrical connection must be carried out by qualified electricians only!

2.1 Security from manipulation

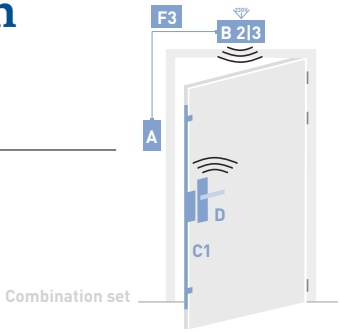
Install the control unit in a secure place inside the door.
In doing so, manipulation from outside is avoided.

3. Product description

3.1 System overview

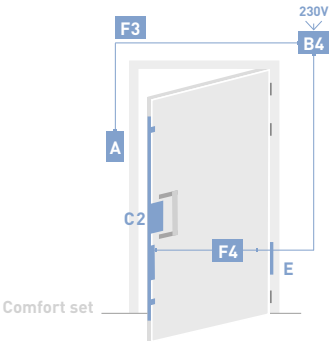
Combination set (for Glutz eAccess control)

A	Finger scanner
B2	eAccess mini control unit, plug-in power supply
B3	Mini control unit, top-hat rail power supply
C1	MINT SV mechanical multipoint lock
D	Security plate with half cylinder for ingress
F3	Finger scanner to mini control unit cable



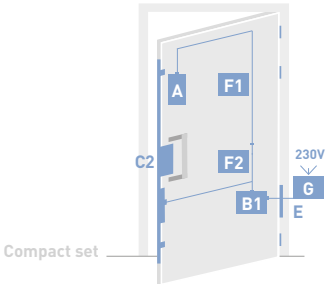
Comfort set (for Glutz MINT SVM motorised lock)

A	Finger scanner
B4	Mini control unit 1 relay
C2	MINT SVM motorised multipoint lock
F3	Finger scanner to mini control unit cable
F4	Adapter cable for MINT SVM
E	Lead cover with connecting cable



Comfort set (for Glutz MINT SVM motorised lock)

A	Finger scanner
B1	Micro control unit
C2	MINT SVM motorised multipoint lock
F1	Finger scanner to micro control unit cable
F2	Finger scanner to micro control unit Y-cable
E	Lead cover with connecting cable
G	24A/230V power supply unit



3.2 Intended use and area of application

This product is an access system with biometric or mental identification features (finger scan or PIN). The system consists of a detection unit and a control unit. It is available in different models and component combinations.

The biometric access system detects the features (minutiae) of the finger lines, compares it with the biometric information stored from the reference fingerprint and opens the door if it matches. A model variant enables identification of the user and the opening of the door by means of an RFID transponder.

4. System components

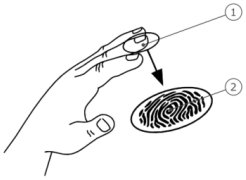
4.1 Finger scanner

The finger scanner detects the fingerprint with a line sensor and evaluates it. It compares the result with the biometric information stored from the reference fingerprint and opens the door if it matches.

The finger scanner only works correctly and reliably with the papillary grooves of the front phalanx. Calmly draw your finger over the sensor evenly and in the correct position.

The model variants with RFID function detect and identify RFID transponders.

① Front phalanx
② Fingerprint

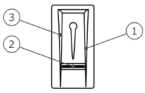


Operator actions of the finger scanner

- **Draw your finger**
  Draw your finger downwards over the sensor evenly
- **Finger touch**
  Briefly touch the sensor with your finger
- **Hold up an RFID transponder**
  Operate the finger scanner with an RFID transponder

Finger guide

① Right guide edge
② Sensor
③ Left guide edge



4.2 Correct execution of the operator actions on the finger scanner

Draw your finger

	Action	Description
1.		Holding your finger straight, place it in the centre between the guide edges. Do not twist it.
2.		Place the joint of the front phalanx directly on the sensor. Place your finger flatly on the finger guide.
3.		Extend the adjacent fingers.
4.		Move your finger downwards over the sensor evenly. Move the entire hand with the finger. Draw the front phalanx over the entire sensor in order to achieve optimal results. The motion takes about 1 second.

- The index, middle and ring fingers work best.
  The fingerprints of the thumb and little finger are more difficult to evaluate.
- If your fingers are often damp, they should be scanned when damp.
- Depending on their development, children's fingers do not work until the child is about 7 years old.

Finger touch

Action	Description
	Touch the sensor briefly and quickly with your finger.

Hold up an RFID transponder

Action	Description
	Position the surface of the RFID transponder about 1–5 cm in front of the finger guide of the finger scanner.

The 'Hold up an RFID transponder' operating mode is only possible with finger scanners with RFID function. Attention: only UID operation is possible ISO 14443A

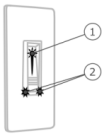
4.3 Optical signals on the finger scanner

There are 2 types of LEDs:

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

Optical signals on the finger scanner

① Status LED
② Function LEDs

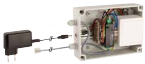


4.4 Finger scanner technical data

Designation	Unit	Values
Power supply	VDC	8–24
Power input	W	Heating off: 1 Heating on: 4
Temperature range	°C	-25 to +70
Memory	Finger RFID transponder	99 99 (only with FS with RFID function)
Security	FAR FRR	1:10,000,000 1:100
Protection rating	IP	SM, IN: 54 (front side) FM: 44 (with FM frame)
Reaction speed	S	1-2
Service life	Finger scans	about 10 million
RFID (only with finger scanner RFID function)	Interface Transponder type	ISO14443A MIFARE Desfire EV1 with at least 1 kByte memory Tested media: Glutz G-Line Clip, Glutz G-Line Card, Glutz C-Line Clip (other media with ISO 14443A also possible, but must be tested first)

4.5 Control units

The control units are available in 3 versions.
They can only operate one detection unit per control unit.
Each detection unit operates with each control unit.

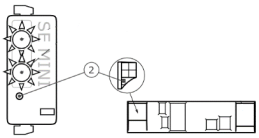
Product name	Figure	Application
82730 **Micro control unit** **1 relay**		Activation of a motorised lock **Integration in the door leaf**
82740 **eAccess mini** **control unit**		Activation of an eAccess device by pairing plug-in power supply
82741 **eAccess mini** **control unit**		Activation of an eAccess device by pairing top-hat rail power supply
82745 **Mini control unit** **1 relay**		Activation of a motorised lock

Function of the control unit

The control unit is the actuator unit of the system.
The control unit switches a relay and provides a digital input.
With the variant with eAccess, a signal is transmitted wirelessly
to the paired eAccess fitting.

Operator actions of the control units

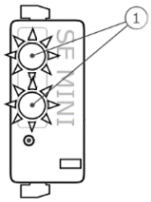
Product name	Campaign	Function
82740 **82741** **82745**	Press the button for about 4 sec	Reset to factory settings
82730	Press the button for about 4 sec	Reset to factory settings



4.6 Optical signals of the control units

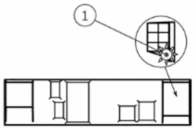
82740 / 82741 / 82745 Mini control unit 1 relay

The upper status LED indicates whether the control unit is coupled with the finger scanner. The lower status LED indicates that a relay switches.



82730 Micro control unit 1 relay

The LED indicates whether the control unit is coupled to the finger scanner and whether the relay switches.



4.7 Control unit technical data

Designation	Unit	Values	
		82740/82741/82745 Mini control unit	82730 Micro control unit
Power supply	VDC	8–24	8–24
Power input	W	approx. 1	approx. 1
Relay	Quantity	1	1
Switching power Relay	VAC/A VDC/A	42/2	42/2
Temperature range	°C	-20 to +70	-25 to +60
Protection rating	IP	20	20
Digital inputs (only potential-free contact can be connected)	Quantity	1	1

5. Installation and commissioning

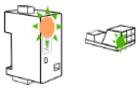
5.1 Commissioning devices

1. Variants: With control unit 82745 or 82730

Assemble and wire the product correctly before connecting the power supply. Failure to do so entails the risk of potential property damage! Do not connect the power supply yet!

Assemble the system according to the supplied assembly instructions.

Wire the system according to the supplied wiring plan.

	Description	Display
1.	Secure the assembly status of the devices. Close the covers.	
2.	Connect the power supply unit to the mains voltage.	The upper status LED of the mini control unit 1 relay blinks orange/green alternatingly and/or the LED of the micro control unit 1 relay slowly blinks green: factory setting. 
3.	No Action required	Status LED of the finger scanner blinks blue 

2. Variants: With control unit 82740 or 82741

With use of control unit 82740 / 82741 in combination with an eAccess fitting, the control unit must be paired with the fitting.

	Description	Display	
1.	Secure the assembly status of the devices. Close the covers.		
2.	Connect the power supply unit to the mains voltage.	The upper status LED of the mini control unit 1 relay blinks orange/green alternatingly and/or the LED of the micro control unit 1 relay slowly blinks green: factory setting.	
3.	No Action required	Status LED of the finger scanner blinks blue	
4.	Pairing of eAccess fitting and control unit 82740 / 82741	The fitting LED illuminates green	

The pairing can take place by means of card programming or software programming:

1. Card programming: See 'eAccess operating manual Card programming', available at www.glutz.com

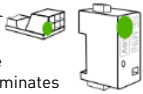
2. Software programming: Both devices must be at the same access point see 'eAccess operating manual', available at www.glutz.com

5.2 Test of wiring

You can check the wiring using test mode.

Executing test mode
A test can only take place if an admin finger has not been stored and/or no mobile device is paired.

Connect the mains voltage and perform the test within the next 10 minutes. If the 10 minutes have expired, this test is possible after the mains voltage is connected again.

	Action	Description	Display
1.		Place a finger on the sensor and leave it in place for more than 3 s.	Status LED blinks blue 
2.		Remove your finger from the sensor within the next 2 s.	The status LED of the finger scanner illuminates green. The upper status LED of the mini control unit 1 relay illuminates green and/or the LED of the micro control unit 1 relay slowly blinks green.  

The relay switches.

You must place your finger on the sensor for a maximum of 5 s.
If you leave your finger on the sensor longer, the relay does not switch.

6. Operational Concept

Depending on the detection unit, there are different operating concepts available:

- Open Biometric App – administration of the Bluetooth finger scanner with a mobile device
- Admin finger – administration of the finger scanner with admin finger

Browse to the operating concept of your detection unit!

See chapter 7 'Establishing normal operation and use of the finger scanner with app'

See chapter 8 'Establishing normal operation and use of the finger scanner with admin finger'

7. Establishing normal operation and use of the finger scanner with app

You must commission the devices before you begin with the administration of your system.

See 5.1 'Test of wiring'

The finger scanner is ready for the paring of the Bluetooth finger scanner with the mobile device. The Open Biometric app is used to program the system. Doors can also be opened with the app.

7.1 Downloading the app

The app is available for Apple iOS and Google Android.
Download the app from App Store or Google Play.
Enter the search term 'Open Biometric'.

Download on the App Store

ANDROID APP ON Google play

7.2 Pairing with a mobile device for the first time

You need a security code to pair a device.
The factory admin pairing code or app security code is 9999.

For security purposes, you must change the admin pairing code to a 6-digit admin pairing code the first time the system is paired. Make note of this code, because it is needed to pair additional mobile devices.

	Description	Display
1.	Start the Open Biometric App.	
2.	According to the instructions on the display: Pair the mobile device with the finger scanner and use the factory admin pairing code 9999.	The status LED illuminates blue, the left function LED illuminates orange. 

The pairing between the finger scanner and mobile device has been carried out. The system is in normal operation. Now you can begin with the programming and administration of the finger scan access system.

Now you only need the intuitive smartphone app for administration of your Bluetooth finger scanner. Tap on the desired functions in the app and follow the instructions on the display.

7.3 Deactivating Bluetooth

You can deactivate the Bluetooth functionality (factory setting: active).

	Instructions
1.	Start the Open Biometric App.
2.	Select **Administration**.
3.	Select **System status**.
4.	Activate under **Bluetooth Settings** Deactivate BT on finger scanner after 15 minutes of inactivity.

With this setting, Bluetooth on the finger scanner is deactivated after 15 minutes in one of the following cases:

- No mobile device was paired
- No finger was stored

You can re-activate Bluetooth in the admin finger menu.

7.4 Pairing additional mobile devices

You can pair additional mobile devices with the Bluetooth finger scanner with your chosen 6-digit admin or user pairing code.

	Description	Display
1.	Start the Glutz Open Biometric App.	
2.	According to the instructions on the display: Pair the mobile device with the finger scanner and use your chosen 6-digit admin and/or user pairing code.	The status LED illuminates blue, the left function LED illuminates orange. 

The pairing between the finger scanner and mobile device has been carried out. Now you can begin with the programming and administration of the finger scan access system via app.

7.5 Managing multiple Bluetooth finger scanners

The app enables administration of multiple Bluetooth scanners.
In order to switch between two finger scanners, the pairing between finger scanner and mobile device must be reset.

When resetting the pairing, the stored relay name and user prints are deleted. The user names and authorisations are stored in the finger scanner.

	Instructions
1.	Start the Open Biometric App.
2.	Select **Administration**.
3.	Select **Reset pairing**.
4.	Confirm the reset with Continue.

The pairing between the finger scanner and mobile device has been reset.
Now you can pair with another Bluetooth finger scanner.

See 7.4 'Pairing additional mobile devices'

7.6 Storing the user pairing code

You can store a user pairing code.
You can share this user pairing code with another person. This person can perform the following actions with their mobile device using this user pairing code:

- Open a door
- Activate or deactivate the app security code
- Change the app security code
- Reset the pairing between the finger scanner and their mobile device

	Instructions
1.	Start the Open Biometric App.
2.	Select **Administration**.
3.	Select **change security codes**.
4.	Enter the desired user pairing code in the appropriate field.
5.	Confirm the entries with change.

The user pairing code was stored.

7.7 Resetting the app security code

If you have forgotten the app security code, you can reset the pairing between finger scanner and mobile device using the app.
The app security code is also reset to the factory value 9999 if you reset the pairing.

Note: This can only be carried out using the most recently paired smartphone

	Instructions
1.	Start the Open Biometric App.
2.	Enter an incorrect app security code.
3.	Confirm the entry with Next.
4.	Select **Reset pairing**.
5.	Confirm the reset with Continue.

The pairing between the finger scanner and mobile device has been reset and the app security code is set to 9999. Now you can pair the Bluetooth finger scanner again.

See 7.4 'Pairing additional mobile devices'

7.8 Protecting the system in case a mobile device is lost

If you have lost your mobile device, you can change the admin and/or user pairing code using a second mobile device.
With the new admin and/or user pairing code, you disable the connection with the lost mobile device.

	Instructions
1.	Start the Open Biometric app on the second mobile device.
2.	Pair the second mobile device with the finger scanner.
3.	Select **Administration**.
4.	Select **change security codes**.
5.	Enter a new 6-digit admin and/or user pairing code.
6.	Confirm the entry with change.

The admin and/or user pairing code was changed in the system.
The lost mobile device can no longer establish a connection to the Bluetooth finger scanner. Your system is protected from access by unauthorised persons.

7.9 Opening the door

The main purpose of the product is door opening.
This can take place with the finger scanner, an RFID transponder or with the digital input.

With the finger scanner

	Action	Description	Display
1.		Draw a stored user finger over the sensor.	Status LED illuminates green. 
		The user finger was not recognised. Repeat step 1.	Status LED illuminates red. 
2.	No action necessary.	The door opens.	Status LED illuminates blue. 

With an RFID transponder

Opening with an RFID transponder is only possible with finger scanners with RFID function.

	Action	Description	Display
1.		Hold a stored RFID transponder in front of the finger guide of the finger scanner.	Status LED illuminates green. Short tone. 
		The RFID transponder was not recognised. Repeat step 1 with a valid RFID transponder.	Status LED illuminates red. Long tone. 
2.	No action necessary.	The door opens.	Status LED illuminates blue. 

With the digital input (door button function)

You can also open the door via the digital input of the control units. The relay switches for at least 3 s. If the digital input is activated for longer than 3 s, the relays switches for as long as the digital input is activated.

8. Establishing normal operation and use of the finger scanner with admin finger

Before you begin with the administration of your system the devices must have been commissioned.

See 5.1 'Commissioning devices'

The finger scanner is ready to store the admin finger.
The admin finger is used for system programming.
However, like user fingers, you can also use the admin finger to open doors.

8.1 Storing the admin finger and establishing normal operation

You must store 4 admin fingers.
We recommend storing 2 fingers from 2 different people.

Initial situation: The system is in normal operation

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates orange, function LEDs blink green. 
2.		Draw admin finger 1 over the sensor to store it. Repeat this step at least 2 times. The finger scanner illuminates orange between the individual finger scans as long as the storing of fingers is not finished. A maximum of 10 s between the individual fingers cans is permitted while the fingers are being stored (the first finger was already drawn over the sensor). Otherwise, the storing of the finger is cancelled.	Status LED illuminates green/ All LEDs illuminate green.   Status LED and left function LED illuminate green.   Status LED illuminates red/ All LEDs illuminate red.   Status LED illuminates green/ Function LEDs illuminate red.  
	 	The quality of the fingerprint is adequate. However, it can be improved by scanning your finger again. If very good quality has not been achieved after scanning 6 fingerprints (), the finger is also accepted with good quality.	
	 	Admin finger 1 was not stored. Draw this finger over the sensor again.	
3.	No action necessary.		Status LED illuminates orange, Function LEDs blink green. 
4.		Perform steps 2 and 3 with the admin fingers 2, 3 and 4 in order to store admin fingers 2, 3 and 4.	Status LED illuminates blue. 

Result: All admin fingers were stored.
The system is in normal operation.

When the finger scanner is restarted, all admin fingers already stored are deleted if the scanner is in admin mode and fewer than 4 admin fingers are available.

8.2 Storing a user finger

The system allows for storage of up to 99 user fingers. A user finger is a finger that triggers an action on the control unit, such as opening a door. We recommend storing 2 fingers each.

Initial situation: The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green. 
		The admin finger was not recognised. Draw this finger over the sensor again.	Status LED illuminates red. 
3.		Perform a finger touch on the sensor within 5 s.	Status LED illuminates orange, Function LEDs blink green. 
4.		Draw the user finger over the sensor to store it. Repeat this step at least 2 times. The finger scanner illuminates orange between the individual finger scans as long as the storing of fingers is not finished. A maximum of 10 s between the individual fingers cans is permitted while the fingers are being stored (the first finger was already drawn over the sensor). Otherwise, the storing of the finger is cancelled.	Status LED illuminates green/ All LEDs illuminate green. 
		The quality of the fingerprint is adequate. However, it can be improved by scanning your finger again.	Status LED and left function LED illuminate green. 
		The user finger was not stored. Repeat the process starting with step 1. The storage of the fingers is cancelled after 10 scans.	Status LED illuminates red/ All LEDs illuminate red.  Status LED illuminates green/ Function LEDs illuminate red. 
5.	No action necessary.		Status LED illuminates blue. 

Result: The user finger was stored. The system is in normal operation.

8.3 Storing an RFID transponder

The system allows for storage of up to 99 RFID transponders. An RFID transponder can trigger an action on the control unit, such as opening a door.

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

Initial situation: The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green. 
		The admin finger was not recognised. Draw this finger over the sensor again.	Status LED illuminates red. 
3.		Perform a finger touch on the sensor within 5 s.	Status LED illuminates orange, Function LEDs blink green. 
4.		Hold the RFID transponder at a distance of 1–5 cm in front of the finger guide of the finger scanner.	All LEDs illuminate green. Short tone. 
		The RFID transponder was not stored. Either you did not hold up the RFID transponder long enough or this RFID transponder was already stored. Repeat the process starting with step 1.	Status LED illuminates red. Long tone. 
5.	No action necessary.		Status LED illuminates blue. 

Result: The RFID transponder was stored. The system is in normal operation.

8.4 Opening the door

The main purpose of the product is door opening.
This can take place with the finger scanner, an RFID transponder or with the digital input.

Initial situation: The system is in normal operation.

With the finger scanner

	Action	Description	Display
1.		Draw a stored user finger over the sensor.	Status LED illuminates green. 
		The user finger was not recognised. Repeat step 1.	Status LED illuminates red. 
2.	No action necessary.	The door opens.	Status LED illuminates blue. 

With an RFID transponder

Opening with an RFID transponder is only possible with finger scanners with RFID function.

	Action	Description	Display
1.		Hold a stored RFID transponder in front of the finger guide of the finger scanner.	Status LED illuminates green. Short tone. 
		The RFID transponder was not recognised. Repeat step 1 with a valid RFID transponder.	Status LED illuminates red. Long tone. 
2.	No action necessary.	The door opens.	Status LED illuminates blue. 

With the digital input (door button function)

You can also open the door via the digital input of the control units. The relay switches for at least 3 s. If the digital input is activated for longer than 3 s, the relays switches for as long as the digital input is activated.

8.5 Deleting a user finger

You can only delete individual fingers of a user, if the person is still present.

Initial situation: The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green.  
	 	The admin finger was not recognised. Repeat step 1.	Status LED illuminates red.  
3.		Wait 5 s.	Status LED illuminates blue, Function LEDs blink red/green. 
4.		Perform a finger touch on the sensor.	Status LED illuminates blue, Function LEDs illuminate left red, right green. 
5.		Draw user finger to be deleted over the sensor.	Status LED blinks red, function LEDs illuminate left red, right green. 
6.	No action necessary.		Status LED illuminates blue. 

8.6 Deleting an RFID transponder

You can only delete an individual RFID transponder if you have the RFID transponder available.

Deletion of an RFID transponder is only possible with finger scanners with RFID function.

Initial situation: The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green. 
		The admin finger was not recognised. Repeat step 1.	Status LED illuminates red. 
3.		Wait 5 s.	Status LED illuminates blue, Function LEDs blink red/green. 
4.		Perform a finger touch on the sensor.	Status LED illuminates blue, Function LEDs illuminate left red, right green. 
5.		Hold the RFID transponder to be deleted in front of the finger guide of the finger scanner.	Status LED blinks red, function LEDs illuminate left red, right green. Long tone. 
6.	No action necessary.		Status LED illuminates blue. 

Result: The RFID transponder was deleted.
The system is in normal operation.

8.7 Deleting all users and RFID transponders

All user fingers and RFID transponders stored in the system are deleted. The admin fingers are still stored.

Initial situation: The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor within 5 s. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green.  
	 	The admin finger was not recognised. Repeat step 1.	Status LED illuminates red.  
3.		Wait 5 s.	Status LED illuminates blue, Function LEDs blink red/green. 
4.		Perform a finger touch on the sensor.	Status LED illuminates blue, Function LEDs illuminate left red, right green. 
5.		Draw the same admin finger over the sensor as in step 1.	Status LED blinks red/orange, Function LEDs blink green. 
6.	No action necessary.		Status LED illuminates blue. 
7.		Draw any user finger over the sensor or hold up any RFID transponder to check. No finger or RFID transponder can be enabled.	Status LED illuminates red. 
8.	No action necessary.		Status LED illuminates blue. 

Result: All user fingers and RFID transponders were deleted.
The system is in normal operation.

9. Resetting the system to factory settings

You can reset the system to the factory settings with the detection unit, the control unit, the digital input (only Glutz micro control unit) or the app (only Bluetooth finger scanner). Find the device that is most accessible.

All authorisations are permanently deleted and the system settings are reset to the factory settings when you perform a factory reset. This restores your system to the condition as supplied.

9.1 About the finger scanner

The resetting to factory settings is triggered with the finger scanner.
All user and admin fingers and all RFID transponders are permanently deleted.
With the Bluetooth finger scanner, the pairing code is also reset to 9999.

At least 2 admin fingers must be stored to reset the Bluetooth scanner.

The system is in normal operation.

	Action	Description	Display
1.		Perform three finger touches on the sensor. This opens the admin menu.	Status LED illuminates blue, Function LEDs illuminate green alternatingly. 
2.		Draw any admin finger over the sensor.	Status LED illuminates blue, Function LEDs blink green.  
	 	The admin finger was not recognised. Repeat step 1.	Status LED illuminates red.  
3.		Wait 5 s.	Status LED illuminates blue, Function LEDs blink red/green. 
4.		Perform a finger touch on the sensor.	Status LED illuminates blue, Function LEDs illuminate left red, right green. 
5.		Draw another admin finger over the sensor as in step 2.	Status LED blink green, Function LEDs blink red. 
6.		Wait 5 s.	Status LED blinks blue. 
7.	No action necessary.		The upper status LED of the mini control unit 1 relay blinks orange/green and/or the LED of the micro control unit 1 relay slowly blinks green. 

The finger scanner was reset to factory settings.
Now you can re-commission the system.

See 8.1 'Storing the admin finger and establishing normal operation'

See 7 'Establishing normal operation and use of the finger scanner with app'

9.2 About the control unit

The resetting to factory settings is triggered with the control unit. The settings of the detection unit are reset to the factory settings and the pairing between control unit and detection unit is deleted.

Action	Description	Display
	Press the button with the control stick (mini CU) or with a small screwdriver (micro CU) for at least 4 s.	Status LED of the finger scanner blinks blue  Upper status LED of the mini CU blinks orange/green and/or  LED of the micro CU blinks green slowly. 

The detection unit and the control unit were reset to factory settings.
Now you can re-commission the system.

See 8.1 'Storing the admin finger and establishing normal operation'

See 7 'Establishing normal operation and use of the finger scanner with app'

9.3 About the digital input

The resetting to factory settings is triggered with the digital input. The settings of the detection unit are reset to the factory settings.

	Instructions
1.	Disconnect the micro from the mains voltage.
2.	Press and hold the door button or close the pins of the digital input briefly and hold them in short-circuit.
3.	Connect the micro to the mains voltage.
4.	Hold the door button or hold the pins of the digital input in short-circuit for at least 5 s.
5.	Release the door button or remove the short-circuit. Press the door button or close the pins of the digital input briefly for at least 500 ms within 5 s.

The detection unit and the control unit were reset to factory settings.
Now you can re-commission the system.

See 8.1 'Storing the admin finger and establishing normal operation'

See 7 'Establishing normal operation and use of the finger scanner with app'

9.4 About the app

The resetting to factory settings is triggered with the app. All user and admin fingers and all RFID transponders are permanently deleted. The pairing code is reset to the factory setting 9999, the relay switching time is set to 3 seconds and the LED brightness of the finger scanner is set to 2 (LED on). These settings can only be adjusted with the app.

	Instructions
1.	Start the Open Biometric App.
2.	Connect with the Bluetooth finger scanner.
3.	Select **Administration**.
4.	Select **Reset system**.
5.	Confirm the reset with Continue.

The Bluetooth finger scanner and the control unit were reset to factory settings. Now you can re-commission the system.

See 7 'Establishing normal operation and use of the finger scanner with app'

10. Updating the software

We continuously improve our products and equip them with new functions. You can perform a software update on the finger scanner and on the control unit. Contact your specialist retailer for more information.

11. Error displays and trouble-shooting for the finger scanner

	Display	Meaning	Remedy
	Status LED illuminates red.	The finger or the RFID transponder was not recognised	Draw the finger over the sensor again. Check whether your RFID transponder is valid.
	Status LED illuminates red.	The finger scanner illuminates red immediately. No fingers or RFID transponders are stored.	Store at least one finger or one RFID transponder.
	Status LED blinks red/green	The sensor of the finger scanner is dirty or defective.	Clean the sensor.
	Status LED illuminates blue, left function LED blinks red/green.	The sensor of the finger scanner with RFID function is dirty or defective, but the RFID function still works.	Clean the sensor.

If these remedies do not solve the problem, contact your specialist partner. If the system has to be sent to Glutz, please ensure that it is packed correctly. Unsuitable packaging may void any warranty claims.

12. Maintenance

The system is basically maintenance-free.

The sensor surface of the finger scanner is practically self-cleaning due to the repeated use (drawing fingers). If the finger scanner is still dirty, clean it with a damp (not wet), not-scratching cloth. Proceed cautiously when cleaning the sensor surface area.

Use clean water without cleansers.

13. Declaration of Conformity

Glutz AG hereby declares that the wireless system of the type
Home Biometrics conforms to Directive 2014/53/EU.
The complete text of the EU Declaration of Conformity is available under the following internet address: **www.glutz.com/service/downloads/**

14. Disposal

Batteries and electronics do not belong in household waste and must be identified with this symbol:

Consumers are legally obligated to return used batteries.
You can drop off your old batteries at public collection points or wherever batteries are sold. Of course, you can also return batteries and electronics to us after use:

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