

# Operating Instructions

**Fingerprint reader**  
2607 ..

# GIRA



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## Device description

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The fingerprint reader provides access control based on the biometric features of the human finger. Using high-frequency technology, it evaluates the structures of the deepest layers of skin on the finger. The sensor can detect signs of life in the human finger. The fingerprint reader can be used as a stand-alone function, e.g. at individual doors or gates. It can also be integrated into the Gira door communication system.

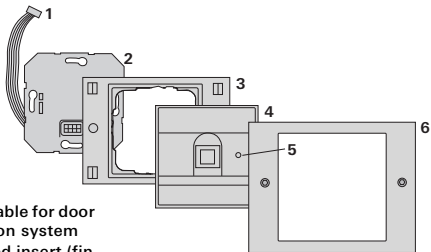
The fingers are constantly checked in the fingerprint reader and are saved as necessary references again. This is especially important for the fingers of children, which change over time and so must be continually updated in memory.

Different fingers can be assigned to the two integrated zero-voltage two-way switch relays. This makes it possible to carry out different switching processes, e.g. index fingers for door opening and thumbs for switching the outside light. The fingerprint reader can administer up to 50 fingers. The fingers can be taught-in via direct configuration at the device without a PC and without programming software.

The fingerprint reader is installed indoors (IP 20) in conjunction with System 55 cover frames and outdoors (IP 44) with TX\_44 cover frames.

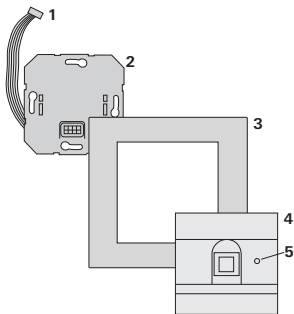
## Device presentation

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### TX\_44

- 1 Connection cable for door communication system
- 2 Flush-mounted insert (fingerprint reader)
- 3 TX\_44 cover frame, bottom section (not included in scope of supply)
- 4 Fingerprint reader
- 5 Status LED
- 6 TX\_44 cover frame, top section (not included in scope of supply)



### System 55

- 1 Connection cable for door communication system
- 2 Flush-mounted insert
- 3 System 55 cover frame (not in scope of supply)
- 4 Fingerprint reader
- 5 Status LED

## Areas of application

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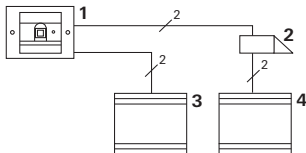
### Use as individual device

In this case the existing zero-voltage relay contacts within the flush-mounted insert are used, e.g. for a door opener with own power supply.



### Unsuitable for use as individual device in safety-relevant areas

Not recommended for opening of outside doors especially in safety-relevant areas, as door may be opened when fingerprint reader is expanded via bridging of open contacts.

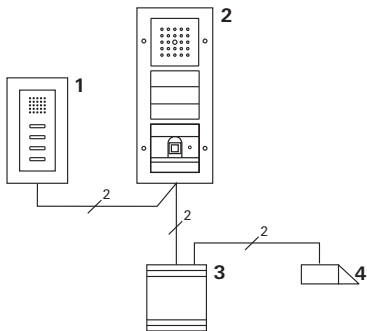


- 1 Fingerprint reader
- 2 Door opener
- 3 Power supply  
24 V DC
- 4 Power supply  
of door opener

## Use in door communication system

The fingerprint reader can be connected to the door communication system via the enclosed connection cable. The fingerprint reader can thus control e.g. the door opener contact of the control device or can trigger the switching action of a switching actuator.

- 1 Hands-free feature surface-mounted home station
- 2 Flush-mounted door station with fingerprint reader
- 3 Audio control device
- 4 Door opener



### Protecting control device from unauthorised access

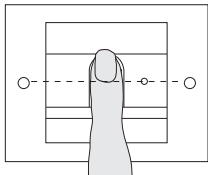
In safety-relevant areas the control device should be securely installed (locked) to prevent unauthorised access.



## Operation

---

To operate the fingerprint reader, only the one-time laying on of the previously taught-in finger is necessary.



The LED lights up red when the finger is laid on. During this time the fingerprint is read.

After the short acknowledgement tone, the finger can be removed. While the fingerprint is being compared to saved fingerprints, the LED lights up orange.

If the finger is recognised the LED lights up green and a long acknowledgement tone is heard (positive acknowledgement signal). At the same time the previously specified switching action is executed.

An unauthorised or unassigned finger is indicated with a red LED and 3 short acknowledgement tones (negative acknowledgement signal).



### **Acknowledgement tones can be switched off**

Acknowledgement tones occurring during operation can be switched off (see Page 26).

## Acknowledgement signals

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The fingerprint reader generates different acknowledgement signals during operation and start-up:

### **Positive acknowledgement signal**

- ✓ The fingerprint reader generates a long acknowledgement tone, the LED simultaneously lights up green.

### **Negative acknowledgement signal**

- ✓ The fingerprint reader generates 3 short acknowledgement tones, the LED simultaneously lights up red.

### **Administrator mode activated**

- ✓ The LED lights up orange.

### **In door communication system: Programming mode activated**

- ✓ The fingerprint reader generates a short acknowledgement tone, the LED flashes orange.

### **Programming mode terminated**

- ✓ The fingerprint reader generates a short acknowledgement tone, the LED is off.



### **Acknowledgement tone off**

If the acknowledgement tone is switched off (see Page 26), there are no more acknowledgement tones. The acknowledgement signals then occur solely via the LED.

## Start-up procedure

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For start-up the fingerprint reader, the following steps must be implemented in the order shown below:

- I. Install fingerprint reader (from Page 12)**  
→ LED flashes green

I

- II. Create first administrator (Page 16)**

Admin<sub>NEW</sub> (7x) → Progr.<sub>NEW</sub> (7x)

II

- III. Create user finger for relay 1/2 (from Page 18)**

R1 = Admin → Progr. → Admin → User<sub>NEW</sub> (7x)

R2 = Admin → Progr. → Progr. → User<sub>NEW</sub> (7x)

III

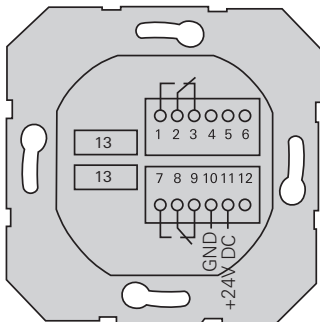
- IV. Carry out configurations on the fingerprint reader (from Page 20)**

IV

- V. Use in door communication system**  
Assigning door opener / switching actuators  
(from Page 29)

V

## Connection terminals



Relay 1	1	Relay 1 N.O. (NO contact)
	2	Relay 1 COM
	3	Relay 1 N.C. (NC contact)
Service	4	not used
	5	not used
	6	GND
Relay 2	7	Relay 2 N.O. (NO contact)
	8	Relay 2 COM
	9	Relay 2 N.C. (NC contact)
Power supply	10	GND
	11	+ 24 V DC
	12	not used
Door communication	13	6-pole slot door communication system



### Important

Installation and mounting of electrical devices may only be carried out by a qualified electrician.

Do **not** use the seals included with the cover frame when installing the flush-mounted inserts in TX\_44 cover frames.

The fingerprint reader is connected via both detachable terminal strips and mounted in a 58 mm flush-mounted box.

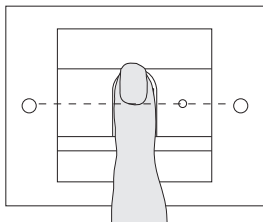
1. Pull off required terminal strip from flush-mounted insert and connect according to terminal figuration.
2. Attach the terminal strip to the flush-mounted insert again.
3. Install flush-mounted insert into flush-mounted box.
4. Install cover frame and attach fingerprint reader.
- ✓ 10 seconds after operating voltage is applied, the LED of the fingerprint reader flashes green.
5. Start-up the fingerprint reader:
  - teach-in first administrator (Page 16),
  - then teach-in the user finger (from Page 18),
  - then if necessary assign switching actuator functions or door opener functions (from Page 32).

## Optimal positioning of finger

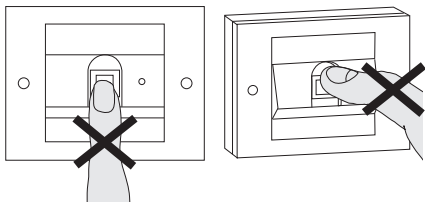
In order to ensure proper functioning of the fingerprint reader, the finger must be correctly laid on during both teaching-in and subsequent operation. It is important that the finger area with the greatest fingerprint movement (middle of fingertip) is registered by the fingerprint sensor.

Therefore position the finger as shown.

**Optimal:**  
The area of greatest fingerprint movement centrally on sensor.



**Incorrect:**

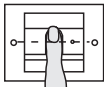


## Basics for the teaching-in of a finger

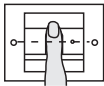
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For the teaching-in of a finger, the finger to be taught-in is repeatedly laid on. It is important to vary the position of the finger with repeated laying on by a few millimetres each time, so that the fingerprint reader can register the largest possible finger area.

1. Place the finger to be taught-in centrally until an acknowledgement tone is heard.

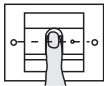


2. Shift the finger slightly upwards.



3. Shift the finger slightly downwards.

4. Repeat steps 1 – 3 until 2 long acknowledgement tones are heard and the LED lights up green



With "difficult" fingers (e.g. those of small children or those with very dry skin) it may be necessary to lay on the finger to be taught-in up to 7 times. If a negative acknowledgement is heard after the seventh attempt (3 short sounds), the teach-in of the finger was not successful.

In this case position the finger again (step 1) or use another finger.

## Teaching-in first administrator

---

Admin<sub>NEW</sub> (7x) → Progr.<sub>NEW</sub> (7x)

Before first start-up, an administrator must be created. If no administrator has been taught-in, the LED of the fingerprint reader flashes green.

An administrator consists of an administrator finger and a programming finger.



### Administrator and programming fingers

Administrator and programming fingers cannot be used for subsequent switching actions.

### Teaching-in first administrator:

- ✓ The LED flashes green.

### Teaching-in new administrator finger:

1. Lay the administrator finger on until a short acknowledgement tone is heard.
- ✓ During laying on the LED lights up red, after removal orange.
2. Lay the administrator finger on again (vary position slightly) until a short acknowledgement tone is heard.
  3. Repeat step 2 until 2 long acknowledgement tones are heard and the LED lights up green.  
The administrator finger was taught-in successfully.
- ✓ The LED lights up orange. Now teach-in the programming finger within 10 seconds.



### **Teaching-in new programming finger:**

4. Lay the programming finger on until a short acknowledgement tone is heard.
  - ✓ During laying on the LED lights up red, after removal orange.
5. Lay the programming finger on again (vary position slightly) until a short acknowledgement tone is heard.
6. Repeat step 5 until 2 long acknowledgement tones are heard and the LED lights up green.

The programming finger was taught-in successfully.
- ✓ The first administrator was taught-in successfully.
7. Enter administrator with administrator and programming finger into the table on Page 44.

## Teaching-in user finger for relay 1

---

Admin → Progr. → Admin → User<sub>NEW</sub> (7x)

### Start mode:

1. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then orange.

### Teaching-in new user finger:

- III
4. Lay the user finger on until a short acknowledgement tone is heard.
    - ✓ During laying on the LED lights up red, after removal orange.
  5. Lay the same finger on again (vary position slightly) until a short acknowledgement tone is heard.
  6. Repeat step 5 until 2 long acknowledgement tones are heard and the LED lights up green.
    - ✓ The user finger was taught-in successfully.
  7. Enter the user in the table on Page 45.
    - ✓ The LED lights up orange, further user fingers can now be taught-in.

## Teaching-in user finger for relay 2

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Admin → Progr. → Progr. → User<sub>NEW</sub> (7x)

### Start mode:

1. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then orange.

### Teach-in new user finger

4. Lay the user finger on until a short acknowledgement tone is heard.
  - ✓ During laying on the LED lights up red, after removal orange.
5. Lay the same finger on again (vary position slightly) until a short acknowledgement tone is heard.
6. Repeat step 5 until 2 long acknowledgement tones are heard and the LED lights up green.
  - ✓ The user finger was taught-in successfully.
7. Enter the user in the table on Page 45.
  - ✓ The LED lights up orange, further user fingers can now be taught-in.

III

## Teaching-in a further administrator

---

Admin → Admin → Progr → Admin<sub>NEW</sub> (7x) → Progr<sub>NEW</sub> (7x)

An administrator consists of an administrator finger and a programming finger.



### Administrator and programming fingers

Administrator and programming fingers cannot be used for subsequent switching actions.

#### Start mode:

1. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then orange.

### **Teaching-in new administrator finger:**

1. Lay the administrator finger on until a short acknowledgement tone is heard.
- ✓ During laying on the LED lights up red, after removal orange.
2. Lay the administrator finger on again (vary position slightly) until a short acknowledgement tone is heard.
3. Repeat step 2 until 2 long acknowledgement tones are heard and the LED lights up green.  
The administrator finger was taught-in successfully.
- ✓ The LED lights up orange. Now teach-in the programming finger within 10 seconds.

### **Teaching-in new programming finger:**

4. Lay the programming finger on until a short acknowledgement tone is heard.
- ✓ During laying on the LED lights up red, after removal orange.
5. Lay the programming finger on again (vary position slightly) until a short acknowledgement tone is heard.
6. Repeat step 5 until 2 long acknowledgement tones are heard and the LED lights up green.  
The programming finger was taught-in successfully.
- ✓ An administrator was taught-in successfully.
7. Enter the administrator in the table on Page 44.

## Deleting administrator

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An administrator is deleted by deleting one of the two fingers (programming or admin finger). When one of the fingers is deleted, the other finger of the administrator also loses its function.



### **The final administrator cannot be deleted.**

If there is only one taught-in administrator remaining in the Fingerprint reader, it cannot be deleted.

Progr. → Progr. → Progr. → Progr. → Deleting administrator

or

Progr. → Progr. → Progr. → Admin. → Deleting administrator

### **Starting mode:**

1. **Lay on the programming finger** until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. **Lay on the programming finger** until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. **Lay on the programming finger** until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes red.

### **Deleting administrator:**

4. Lay on the programming or administrator finger to be deleted until a short acknowledgement tone is heard.
  - ✓ The LED lights up orange. The Fingerprint reader generates a positive acknowledgement signal:  
Deleting the administrator was successful.
  - ✓ Three brief acknowledgement tones signify that an unknown finger was laid on or there is only one taught-in administrator remaining in the Fingerprint reader, and it cannot be deleted.
5. Remove the deleted administrator from the table on Page 44.

## Deleting user finger

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Progr. → Progr. → Progr. → Delete user

### Start mode:

1. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes red.

### Delete user finger:

4. Lay on the user finger to be deleted until a short acknowledgement tone is heard.
  - ✓ The LED lights up orange. The fingerprint reader generates a positive acknowledgement signal:  
The finger was deleted successfully.
  - ✓ 3 brief acknowledgement tones signify that an unknown finger was laid on.
  - ✓ The LED flashes red. Further user fingers can be deleted.  
After approx. 10 seconds the procedure is terminated.
5. Remove deleted user fingers from the table on Page 45.



## Switching illumination of contact surface on/off

---

Factory setting: The night illumination of the fingerprint reader contact surface is activated.

Progr. → Admin → Admin = Setting changes

### Changing illumination setting:

1. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The fingerprint reader generates a positive acknowledgement signal.  
The night illumination changes its status.

## Switching acknowledgement tones on/off

---

Factory setting: Acknowledgement tone is activated.

Progr. → Admin → Progr. = Setting changes

The acknowledgement tones are activated/deactivated as follows:

1. Lay the **programming finger** on until a short acknowledgement tone is heard.  
✓ The LED briefly lights up green, then flashes orange.
2. Lay the **administrator finger** on until a short acknowledgement tone is heard.  
✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **programming finger** on until a short acknowledgement tone is heard.  
✓ The fingerprint reader generates a positive acknowledgement signal.  
The acknowledgement tone is switched over.

## Setting switching time of relays

---

The contact hold time of both relays can be set from 3 to 30 seconds.

Progr. → Progr. → Admin → User → Switching time → User

### Start mode:

1. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange.
2. Lay the **programming finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then flashes orange twice.
3. Lay the **administrator finger** on until a short acknowledgement tone is heard.
  - ✓ The LED briefly lights up green, then orange.

### Set contact hold time:

4. Lay on any finger to start switching time.
  - ✓ The fingerprint reader generates an acknowledgement tone every second, the LED simultaneously flashes green. The relays are not activated during setting of the switching time.
5. To end setting of the switching time, lay on any finger again.
  - ✓ The fingerprint reader generates a positive acknowledgement signal: the switching time was successfully set.

## Reset to factory settings – delete all assignments

---

The fingerprint reader can be reset to the state of delivery. In this case, all user and administrator assignments are lost.

Admin → Admin → Admin (5 secs.) = State of delivery

### Resetting fingerprint reader:

1. Lay the **administrator finger** on until a short acknowledgement tone is heard.
    - ✓ The LED briefly lights up green, then flashes orange.
  2. Lay the **administrator finger** on until a short acknowledgement tone is heard.
    - ✓ The LED briefly lights up green, then flashes orange twice.
  3. Lay the **administrator finger** on for 5 seconds.
    - ✓ During these 5 seconds brief acknowledgement tones are heard, the LED simultaneously flashes red.
    - ✓ 2 long acknowledgement tones are heard, the LED lights up green.
    - ✓ The LED flashes green.
- The device is now in the state of delivery. All previous settings have been reset, all user- and administrator fingers have been deleted.



### Important! Administrator also deleted

Before reprogramming, an administrator must first be created (see Page 16).

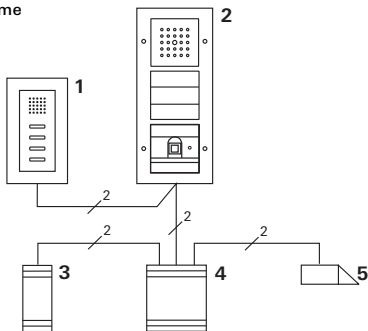
## Integration in the door communication system



### Before start-up teach-in new administrator and user fingers

Before start-up in the door communication system, the corresponding administrator and user fingers must be taught-in (from Page 16).

- 1 Surface-mounted home station
- 2 Door station with fingerprint reader
- 3 Switching actuator
- 4 Control device
- 5 Door opener

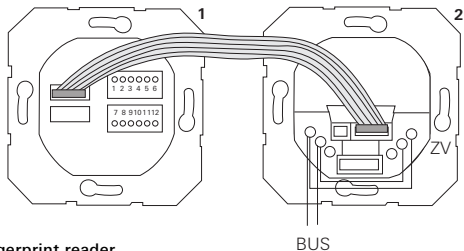


The fingerprint reader can be connected to the Gira flush-mounted door stations and to the built-in loudspeaker. Via previously taught-in user fingers, up to 16 switching actuators (8 group actuators + 8 individual switching actuators) and the door opener function can be controlled.

**Full functionality of the switching actuators from index I02.**

## Connection to door communication system

The fingerprint reader is connected to a door communication bus coupler or call button insert of the Gira door communication system with the accompanying connection cable.



- 1 Fingerprint reader
- 2 Door communication bus coupler

Power supply for the fingerprint reader is via the door communication bus. In this case, jumpers between ZV and BUS must be attached to the bus coupler of the door station.



### First, start-up the door communication system

Before programming of the fingerprint reader is begun, the door communication system must be started up.

## Direct assignment/group assignment

Assignment differentiates between:

- **direct assignment** of individual user fingers to an individual switching actuator
- **group assignment** of all user fingers to a switching actuator.

With group assignments, all user fingers assigned to the fingerprint reader trigger a switching action with the switching actuator.

During programming, an admin finger is laid on instead of a user finger.



### Advantage of group assignment

With group assignments, all taught-in user fingers in a programming step are assigned a common switching actuator. User fingers that are also assigned at a later date to the fingerprint reader can switch this common switching actuator without further programming.



### Additional acknowledgement tone

If the switching actuator is assigned in the operating mode "switching", the connected door station generates an additional acknowledgement tone.

## Assignment

### User-specific switching actuator/door opener

---

User fingers must be taught-in in the fingerprint reader beforehand (from Page 18).

1. Press the "Systemprogr." button on the control device for 3 secs. to start programming mode.
  - ✓ The LED at the control device flashes. The fingerprint reader generates an acknowledgement tone and the LED flashes orange. The operating mode LED of the switching actuator flashes.
2. Press the button "Progr." at the switching actuator (or the button "Türöffnerprogr." of the control device), until the LED next to the button flashes.
  - ✓ The fingerprint reader again generates an acknowledgement tone.
3. Lay on the user finger to be assigned.
  - ✓ The fingerprint reader generates a positive acknowledgement signal:  
The switching actuator was assigned successfully.
4. Press the "Systemprogr." button on the control device to exit the programming mode.



#### **Delete assignment of user - switching actuator**

To delete the user - switching actuator assignment, the teach-in procedure is repeated.

The assignment cannot be deleted via the switching actuator (press programming button 6 secs.)



## Assignment of user - group switching actuator/door opener

---

Assigning all taught-in user fingers in the fingerprint reader to a group switching actuator:

1. Press the "Systemprogr." button on the control device for 3 secs. to start programming mode.
  - ✓ The LED at the control devices flashes.  
The fingerprint reader generates an acknowledgement tone and the LED flashes orange. The operating mode LED of the switching actuator flashes.
2. Press the button "Progr." at the switching actuator (or the button "Türöffnerprogr." of the control device), until the LED next to the button flashes.
  - ✓ The fingerprint reader again generates an acknowledgement tone.
3. Lay on admin finger.
  - ✓ The fingerprint reader generates a positive acknowledgement signal.  
The switching actuator was assigned successfully.
4. Press the "Systemprogr." button on the control device to exit the programming mode.



### **Delete assignment of user - switching actuator**

To delete the user - switching actuator assignment, the teach-in procedure is repeated.

The assignment cannot be deleted via the switching actuator (press programming button 6 secs.).

## Relays/actuators – what switches when?

---

The following rules apply with the basic configuration of the switching actuator assignments:

- the relays of the fingerprint reader are not switched as soon as a switching actuator is assigned.
- an individual switching actuator always has a higher priority than a group switching actuator.

<b>Individual actuator</b>	<b>Group actuator</b>	<b>Relay</b>
not assigned	not assigned	switches
not assigned	assigned - switches	does not switch
assigned - switches	assigned – does not switch	does not switch

### Extended configuration

In the basic configuration a user finger switches only the assigned switching actuator. If this user finger additionally triggers the "group actuator" or a relay, the user finger is assigned a special mode:

<b>Mode</b>	<b>Assigned individual actuator</b>	<b>Assigned group actuator</b>	<b>Assigned relay</b>
1*	switches	does not switch	does not switch
2	switches	switches	does not switch
3	switches	does not switch	switches
4	switches	switches	switches

\* Factory setting

## 5 rules for selecting the correct mode

---

### Rule 1:

If the door communication system has not been assigned any switching actuators, the relays assigned to the user are always switched.

### Rule 2:

If the relays should switch together with a switching actuator (individual/group), mode 3 or 4 must be selected.

### Rule 3:

An individual switching actuator assigned to an individual user always has a higher priority than a group switching actuator.

### Rule 4:

If a group switching actuator is assigned, it switches in mode 1 as long as no individual switching actuator is assigned.

### Rule 5:

If a group switching actuator should switch together with an individual switching actuator, mode 2 or 4 must be selected.

## Assigning mode to an individual user finger

---

To assign the corresponding mode to a user finger, proceed as follows:

1. Press the "Systemprogr." button on the control device for 3 secs. to start programming mode.
  - ✓ The LED at the control devices flashes.  
The fingerprint reader generates an acknowledgement tone and the LED flashes orange.
2. The corresponding mode can be selected by laying on of the user finger:
  - ✓ When the user finger is first laid on, the current active mode is displayed with acknowledgement tones and flashing of the green LED.

Mode	Indiv. actuator	Group actuator	Relay	Tones	LED
1	YES	NO	NO	1	1-gang
2	YES	YES	NO	2	2-gang
3	YES	NO	YES	3	3-gang
4	YES	YES	YES	4	4-gang

3. With a repeated laying on of the user finger, the fingerprint reader changes to the next mode.
4. Repeat step 3 until the desired mode is reached.
5. Press the "Systemprogr." button on the control device to exit the programming mode.

## Assigning mode to a user finger group

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To assign the corresponding mode to the group of user fingers, proceed as follows:

1. Press the "Systemprogr." button on the control device for 3 secs. to start programming mode.
  - ✓ The LED at the control devices flashes.  
The fingerprint reader generates an acknowledgement tone and the LED flashes orange.
2. The corresponding mode can be selected by laying on of the admin finger:
  - ✓ When the user finger is first laid on, the current active mode is displayed with acknowledgement tones and flashing of the green LED.

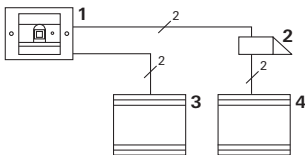
Mode	Indiv. actuator	Group actuator	Relay	Tones	LED
1	YES	NO	NO	1	1-gang
2	YES	YES	NO	2	2-gang
3	YES	NO	YES	3	3-gang
4	YES	YES	YES	4	4-gang

3. With a repeated laying on of the user finger, the fingerprint reader changes to the next mode.
4. Repeat step 3 until the desired mode is reached.
5. Press the "Systemprogr." button on the control device to exit the programming mode.

## Example 1: Starting-up stand-alone function

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In this example, relay 1 of the fingerprint reader switches the door opener.



- 1 Fingerprint reader
- 2 Door opener
- 3 24 V DC power supply
- 4 Power supply of door opener

### Start-up

1. Before first start-up, an administrator must be created. An administrator consists of an administrator finger and a programming finger.
2. Teaching-in user finger for relay 1:

Admin → Progr. → Admin → User<sub>NEW</sub> (7x)

### Operation

To open the door, the previously taught-in user finger is laid on the fingerprint reader.

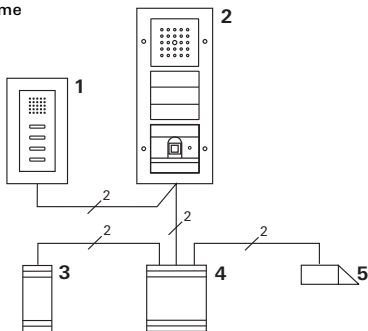
## Example 2: Starting-up door communication system

In the single-family house, all occupants should be able to open the door with their user fingers (group assignment).

With a further finger, selected persons should be able to switch on the outside light via the switching actuator.

### Switching

- 1 Surface-mounted home station
- 2 Door station with fingerprint reader
- 3 Switching actuator
- 4 Control device
- 5 Door opener



## Start-up

1. Before first start-up, an administrator must be created. An administrator consists of an administrator finger and a programming finger.
2. All user fingers must firstly be taught-in in the fingerprint reader beforehand:

Admin → Progr. → Admin → User<sub>NEW</sub> (7x)

## Assigning the switching actuator

1. Start programming mode at the control device.
2. Start the programming mode at the switching actuator and select the operating mode "Switching".
3. In programming mode, assign a user finger to the switching actuator:  
For this, lay the selected user finger on the fingerprint reader.
4. Exit programming mode at the control device.



## **Assigning the door opener**

All house occupants should be able to open the door with their user fingers.

1. Start programming mode at the control device.
2. Start door opener programming mode at the control device.
3. Carry out the group assignment with the admin finger:  
For this, lay the admin finger on the fingerprint reader.
4. Exit programming mode at the control device.

## **Operation**

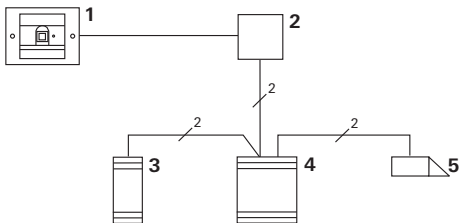
To switch on the light, the selected people lay their user fingers on the fingerprint reader.

To open the door, the people lay their user fingers on the fingerprint reader.

### Example 3: Integration in door communication system without speech function

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If no speech function is required, the fingerprint reader can be integrated into the door communication system as follows:



- 1 Fingerprint reader
- 2 Bus coupler door communication
- 3 Switching actuator
- 4 Control device
- 5 Door opener



#### **Pay attention before start-up!**

Before start-up the bus coupler must be assigned to the control device. For this, a jumper is attached between the ET terminals for 3 seconds in system programming mode.

## Removal alarm

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The flush-mounted insert generates an alarm signal after removal of fingerprint reader.

### **With individual device**

If the fingerprint reader is removed from the flush-mounted insert, a 1-minute continuous tone is emitted.

### **In door communication system**

If the fingerprint reader is operated with the door communication system, the removal signal can be forwarded to a switching actuator in addition to the 1-minute continuous tone. Any switching action can then be carried out via the switching actuator.

For this, the switching actuator is assigned as follows:









1. Press the "Systemprogr." button on the control device for 3 secs. to start programming mode.
  - ✓ The LED at the control devices flashes.  
The fingerprint reader generates an acknowledgement tone and the LED flashes orange.  
The operating mode LED of the switching actuator flashes.
2. Press the button "Progr." at the switching actuator
  - ✓ The fingerprint reader again generates an acknowledgement tone.
3. Remove the fingerprint reader from the flush-mounted insert.
4. Press the "Systemprogr." button on the control device to exit the programming mode.

## Table for start-up documentation







In the following tables the fingers of the administrators or users can be marked as references.

The example administrator selects the thumb of the left hand as the admin finger, and the index finger of the right hand as programming finger.

### Administrators

Administrator	Admin finger	Programming finger
Example administrator		
		
		
		

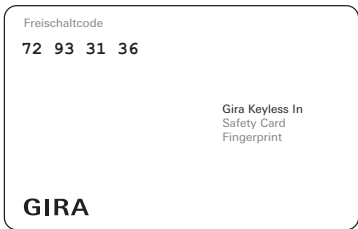
## Users

User / Function	User finger
	
	
	
	
	
	

## Procedure when the administrator is no longer available.

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If an administration finger is lost or the system administrators are no longer available, the fingerprint modules can no longer be administered. For this reason it is recommended to teach-in an admin/programming finger pair from two or even three people (see Page 20).



If an administrator is no longer available, the fingerprint reader along with the accompanying security card should be sent to the Gira Service Center. A resetting to factory settings is carried out there, meaning all administrators and users are deleted.

## Technical data

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Power supply:	24 V DC $\pm$ 10 %
Protection type:	IP 20 (system 55) IP 44 (TX_44)
Temperature range:	-20 °C to +70 °C
Resistance to EMD:	up to 15 kV
Relay load capacity:	24 V / 1.6 A AC/DC



### **Relay protection with free-wheeling diode**

For protection of relay contacts it is recommended to parallel connect a free-wheeling diode when connecting inductive loads (e.g. door openers).

## Warranty

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The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade).

They will forward the devices to the Gira Service Center.

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