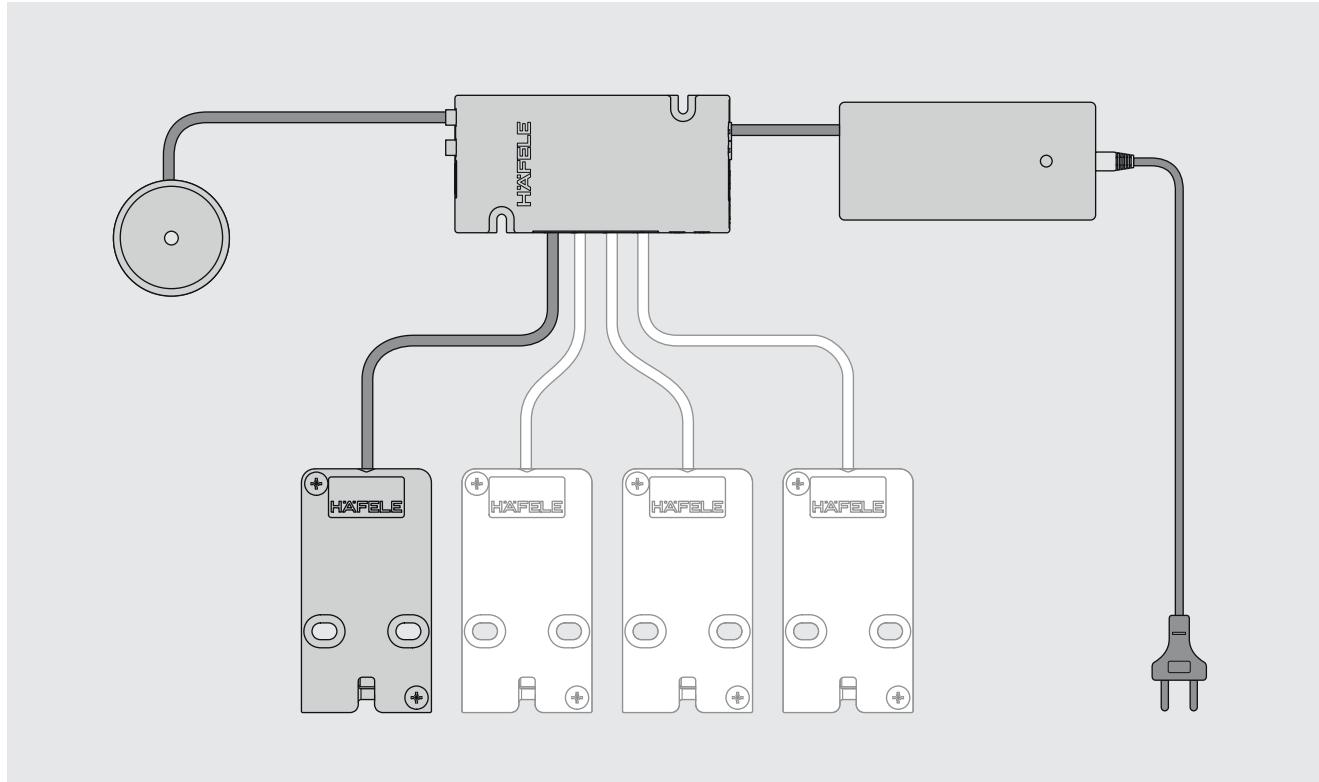




## FT 200 - System FT 200 CAP - System



Betriebsanleitung - Deutsch.....	2
Operating instructions - English.....	41
Instructions d'utilisation - Français.....	81
Manual de instrucciones - Español.....	121
Istruzioni d'uso - Italiano .....	160
Manual de instruções - Português .....	199

**Table of contents**

1.	About this document .....	43
1.1	Target groups of the operating instructions .....	43
1.2	Associated documents .....	43
2.	Safety .....	43
2.1	Proper use .....	43
2.2	Improper use .....	44
2.3	Personnel qualifications .....	44
2.4	General safety instructions .....	45
2.5	Electrical safety .....	45
3.	Structure and function .....	46
3.1	System overview .....	46
3.2	Technical data .....	49
3.3	Functions .....	51
3.4	Factory settings .....	53
3.5	Accessories .....	53
4.	Mounting and installation .....	53
4.1	Installation references .....	54
5.	Commissioning .....	55
5.1	Commissioning app (Häfele My Dialock Manager) .....	56
6.	Programming user keys .....	58
6.1	Programming a normal user key .....	59
6.2	Programming a privileged user key .....	60
6.3	Programming a user key with deadbolt lock function .....	61
7.	Clearing locking authorisations .....	62
7.1	Erasing the locking authorisation of an individual user key .....	62
7.2	Clearing locking authorisations for all user keys .....	62
8.	Operation .....	63
8.1	Operation with a normal user key .....	63
8.2	Operation with user key with deadbolt lock function .....	64
8.3	Programming permanent deadbolt lock operation .....	65
8.4	Allocating the user keys in keyed to differ operation (FT 200 + max. 1x MLA 8) .....	66
8.4.1	Allocating user keys by means of consecutive lock allocation .....	66
8.4.2	User key allocation by unlocking the locks .....	68
8.5	Adjusting the open time .....	69
9.	Extensions and connections .....	70
9.1	Connections to the potential free input/output .....	70

---

10. Installation examples .....	71
10.1 Alarm on FT 200 / FT 200 CAP .....	71
10.2 FT 200 / FT 200 CAP as a switching device for the alarm .....	71
10.3 One MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation .....	72
10.4 Several MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation .....	73
10.5 An MLA 8 on FT 200 / FT 200 CAP in keyed alike and/or keyed to differ operation.....	74
10.6 Several MLA 8 at the FT 200 / FT 200 CAP in keyed alike operation .....	75
11. Troubleshooting .....	76
12. Reset .....	76
12.1 Simple reset .....	77
12.2 Complete reset .....	78
13. Cleaning and maintenance .....	78
13.1 Cleaning .....	78
13.2 Maintenance .....	79
14. Disassembly .....	79
15. Disposal .....	79
16. EU Declaration of conformity .....	79
17. UKCA Declaration of conformity .....	79
18. Approval according to Part 15 of the FCC rules .....	80

73222.024

HDE 04.10.2021

## 1. About this document

These operating instructions are valid for the “FT 200 / FT 200 CAP” system. They are part of the system and must be kept until the system is disposed of.

### 1.1 Target groups of the operating instructions

The target groups of the operating instructions are:

- Operator
- Installation personnel
- Commissioning personnel
- Operating personnel

### 1.2 Associated documents

Document	Contents
Installation instructions for the individual system components	Mechanical installation

All product documentation is available from [www.hafele.com](http://www.hafele.com).



Products with this marking can be put into operation and managed with the Häfele My Dialock Manager app.

73222.024

## 2. Safety

### 2.1 Proper use

The “FT 200 / FT 200 CAP” system is an electromechanical closing device for furniture. The following list outlines prerequisites for proper use:

- Indoor use
- Use in compliance with the technical data ⇒ *3.2 Technical data, page 49*
- Power supply provided exclusively with the PS 4 power supply unit
- Electrical connection to an earthed shockproof and easily accessible socket installed according to national regulations. The connection data of the socket must match the connection data of the product ⇒ *3.2 Technical data, page 49*.

## 2.2 Improper use

Any use that is not mentioned in chapter 2.1 *Proper use* is considered improper.

The following list outlines examples of improper use:

- Outdoor use
- Use in aggressive (containing salt or chlorine, for example) or damp environments
- Use in potentially explosive environments
- Use in the vicinity of electromagnetically sensitive devices
- Use in the vicinity of hot surfaces, heat sources, easily flammable materials or areas with direct sunlight
- Omitting components during installation
- Changes to the installation order
- Use of defective or damaged components
- Use of non-original components
- Modification or repairs of the system and system components
- Use by persons who have not received instructions

## 2.3 Personnel qualifications

Task	Level of qualification
Transport, storage	Specialist
Installation	Specialist
Installation	Specialist
Commissioning	Specialist
Allocation and deletion of locking authorisations	Operating personnel
Operation	Operating personnel
Interference	Specialist
Reset	Specialist
Cleaning	Operating personnel
Disassembly	Specialist
Disposal	Specialist

### Specialist

Specialists are:

- Experts in furniture construction with the adequate level of professional training, knowledge and experience to recognise and avoid hazards that may arise in connection with their work and its outcomes.

### Operating personnel

Operating personnel are those with locking authorisation. Operating personnel are trained on:

- Safe and proper handling of the product
- Responsible use of locking authorisations

## 2.4 General safety instructions

The product has been built in accordance with the latest state of technology and the recognised technical safety regulations. Nevertheless, danger to persons or damage to the product or other property could occur during installation and use.



### WARNING

#### Risk due to failures or faults in electromagnetically sensitive devices

The electromagnetic radiation of the product can cause faults in sensitive parts – for example, in medical equipment. This may affect its functionality.

- Do not place product close to electromagnetically sensitive devices.
- If you have any doubts regarding compatibility, please contact the manufacturer.

## 2.5 Electrical safety

Observe the following safety instructions to avoid the risk of a life-threatening electric shock:

- Disconnect the system from the power supply completely during assembly and installation work.
- Do not carry the product by the cable.
- Check all components for damage prior to assembly and operation. Do not use any damaged components; file a complaint with the manufacturer.
- Do not modify or replace the plug or cable.
- Do not trap, kink or damage the cable. Do not place the cable over sharp edges or corners. Keep the cable a sufficient distance away from movable or rotating parts.
- Do not open the housing of the product components.
- Do not use any power outlet boxes, extension cables or adapters when connecting to the power supply.
- Never immerse the product components in water or other liquids.

### 3. Structure and function

#### 3.1 System overview

The following overview displays the basic system components.

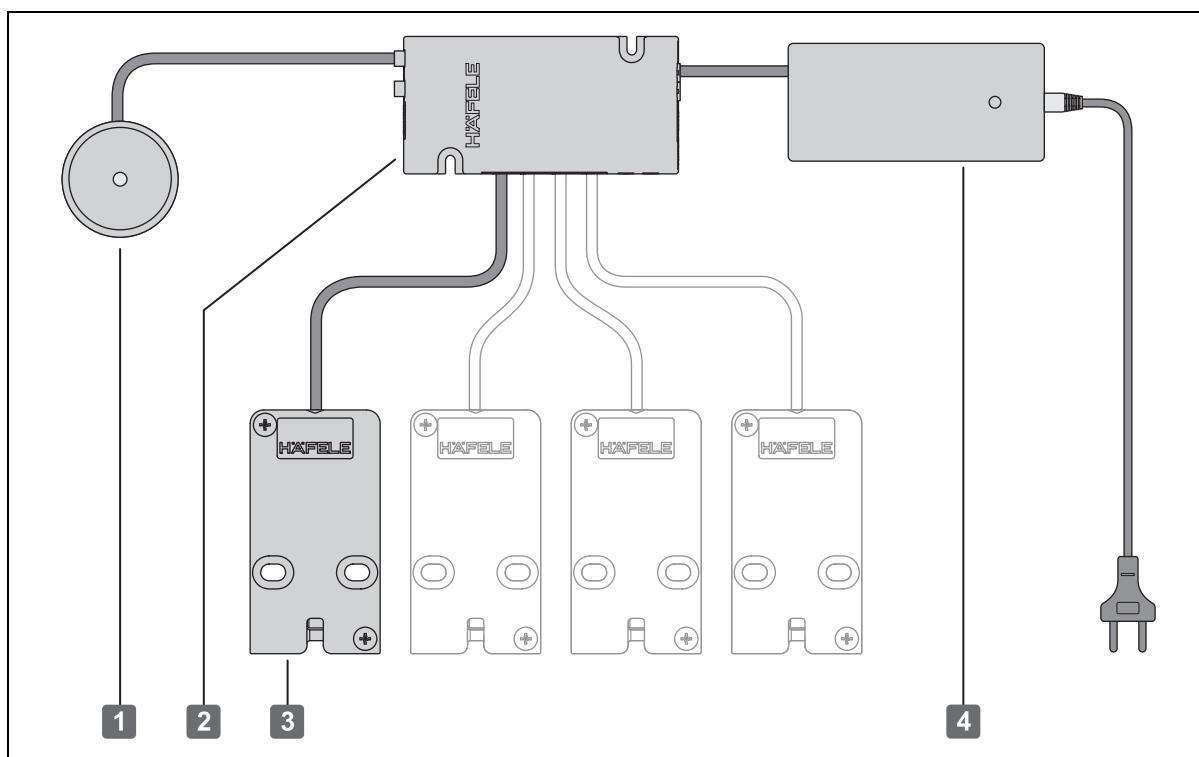


Fig. 1: Overview

732.22.024

Basic components		Description
1	Antenna FAN 200	<ul style="list-style-type: none"> <li>Reader unit with integrated LED</li> <li>LED red/green Red: In operation, lock engaged Green: Lock disengaged</li> </ul>
2	Furniture terminal FT 200 / FT 200 CAP	<ul style="list-style-type: none"> <li>System control unit</li> <li>Connections for max. 4 furniture locks EFL 3 / EFL 3C</li> </ul>
3	Furniture lock EFL 3 / EFL 3C	<ul style="list-style-type: none"> <li>Electronically operated furniture lock</li> </ul>
4	Power supply unit PS 4	<ul style="list-style-type: none"> <li>Voltage supply</li> </ul>

HDE 04.10.2021

The system can be extended to include the following components, see also  $\Rightarrow$  9. *Extensions and connections, page 70.*

Extension	Description
MLA 6P multi-lock adapter	<ul style="list-style-type: none"> <li>• Electronic output extender for connecting up to 6 EFL 3 / EFL 3C furniture locks in keyed alike operation.</li> <li>• Multiple MLA 6P devices can be connected one after the other (cascaded) for each EFL 3 / EFL 3C connection to furniture terminal FT 200 / FT 200 CAP.</li> <li>• When doing this, each MLA 6P requires its own voltage supply, for which additional PS4 power supply units are required.</li> <li>• <b>Attention: please note the rated values of the system components!</b></li> </ul>
Multi-lock adapter MLA 8	<ul style="list-style-type: none"> <li>• Electronic output extender for connecting up to 8 EFL 3 / EFL 3C furniture locks in keyed alike and / or keyed to differ operation.</li> <li>• Up to 16 MLA 8 devices (= 128 furniture locks) can be connected one after the other in series (cascaded) to the FT 200 / FT 200 CAP for exclusive keyed alike operation.</li> <li>• <b>Attention! Please note the rated values of the system components!</b></li> <li>• Feedback from the furniture locks is not possible with a series connection.</li> <li>• With keyed to differ operation, only one MLA 8 can be connected to the FT 200 / FT 200 CAP. The total number of EFL 3 / EFL 3C furniture locks can therefore be extended to a maximum of 12.</li> <li>• The EFL 3 / EFL 3C feedback contacts for monitoring can be interrogated by the terminal using macro programs.</li> <li>• Note: the order of the EFL 3 / EFL 3C connections always starts at the FT 200 / FT 200 CAP, so that if there are more than four EFL 3 / EFL 3C, the 5<sup>th</sup> will be connected to output 1 of the MLA 8.</li> </ul>
Signal generator, visual (LED)	<ul style="list-style-type: none"> <li>• Visual display of the locking status</li> <li>• LED red/green</li> <li>• Illuminates in the same way as the LED of the FAN 200 antenna</li> </ul>
Signal generator, acoustic	<ul style="list-style-type: none"> <li>• Acoustic signalling of the locking status</li> <li>• Piezo sound generator (105 dB)</li> <li>• Macro required (<math>\Rightarrow</math> Macros, page 48)</li> </ul>
Green connector $\Rightarrow$ 9. <i>Extensions and connections, page 70.</i>	<ul style="list-style-type: none"> <li>Potential-free input/output</li> <li>• Relay output port NO, NC, COM</li> <li>• Digital input port</li> <li>• Macro required (<math>\Rightarrow</math> Macros, page 48)</li> </ul>

Extension	Description
CC 200 Powerbank	<ul style="list-style-type: none"> <li>Connection cable for a Powerbank for the emergency power supply of the FT 200 in the event of a power failure (emergency opening)</li> </ul> <p>When using a Powerbank:</p> <ul style="list-style-type: none"> <li>Disconnect the FT 200 from the mains. Parallel operation is not permitted!</li> <li>Connect and use Powerbank only in case of emergency mode (power failure).</li> <li>Disconnect Powerbank from the Dialock system after emergency mode.</li> <li>Only use the CC 200 Powerbank connection cable. Please note separate installation instructions for this purpose.</li> </ul>
Powerbank	<p>Recommendation:</p> <ul style="list-style-type: none"> <li>The JPB20AHB and JPB30AHB models from Jauch are tested and approved for use. Detailed information about these products can be found at:           <ul style="list-style-type: none"> <li>- Jauch Quartz GmbH In der Lache 24 78056 Villingen-Schwenningen Germany +49 77 20 / 9 45-323 <a href="mailto:info@jauch.com">info@jauch.com</a> <a href="http://www.jauch.com">www.jauch.com</a></li> </ul> </li> <li>Deviating products must comply with the specifications of these models:           <ul style="list-style-type: none"> <li>- Output: 12 V DC</li> <li>- Capacity: min. 20100 mAh</li> <li>- Connector: JPB20AHB (J210/5.5 x 2.1 mm) JPB30AHB (adapter 5.5 x 2.1 mm / scope of delivery)</li> </ul> </li> <li>Observe the operating instructions and all enclosed information from the Powerbank manufacturer!</li> <li>Before connecting to the Dialock system, check the charging status and the setting of the output voltage (12 V DC).</li> <li>No permanent or parallel operation is permitted with the Powerbank.</li> <li>Häfele does not accept any liability for damage caused by non-approved Powerbanks.</li> </ul>
Macros	<ul style="list-style-type: none"> <li>Macros are programs which extend the functional scope of the FT 200 / FT 200 CAP.</li> <li>Customer specific requirements (e.g. installation of an acoustic signal generator or activation of an alarm system) can be implemented with macro programmes on request.</li> <li>The transfer to the FT 200 / FT 200 CAP takes place via the MDU 110.</li> <li>If you have any questions concerning the development or functionality of the macros, please contact your responsible DIALOCK technician or <a href="http://www.hafele.com">www.hafele.com</a>.</li> </ul>

73222.024

HDE 04.10.2021

### 3.2 Technical data

#### FT 200 / FT 200 CAP furniture terminal

Feature	Value
Power supply	12 V DC, ± 20 %
Current consumption max. (incl. 4x EFL 3)	690 mA
Ambient temperature	0 - 55 °C
Relative humidity	10 to 95%, not condensed
Degree of protection	IP20
Relay output port NO, NC, COM	125 V AC / 60 V DC, 1 A max.
Transponder technology	Tag-It, Mifare Classic EV1, Mifare DESFire EV1 and EV2. The transponders used for Dialock software applications must be qualified and encoded by Häfele.
Approvals	CE, FCC / IC, Japan Radio Law
Connections	
Connection cable (150 mm) with plug	Micro AMP WR MPC3-3.00 mm
Socket, antenna	SMB coaxial
Socket, MLA 8	RJ 11
Socket, EFL 3 / EFL 3C	RJ 10
Socket, optical signal generator (LED)	SM02B-SFHRS-TF
Socket, acoustic signal generator	SM02B-SFHRS-TF
Socket, AUX	Term block plug WR-TBL
Socket, OUT (supply voltage)	Micro Power Connector WR-MPC3
Socket, IN (supply voltage)	Micro Power Connector WR-MPC3

#### Antenna FAN 200

Feature	Value
Degree of protection	IP 67
Transponder technology	Tag-It, Mifare Classic EV1, Mifare DESFire EV1 and EV2. The transponders used for Dialock software applications must be qualified and encoded by Häfele.
Read range	≤ 25 mm
Environment	Not suitable for installation: <ul style="list-style-type: none"> <li>• in metal</li> <li>• in metal-coated furniture</li> <li>• behind mirrored surfaces</li> </ul>
Minimum distance between two antennas	250 mm

**EFL 3 / EFL 3C furniture lock**

<b>Feature</b>	<b>Value</b>
Power supply	12 V DC
Continuous current consumption	≤ 10 mA
Current consumption max.	130 mA/40ms
Operating temperature	0 - 50 °C
Relative humidity	10 to 95%, not condensed
Degree of protection	IP20
Tensile load	1,000 N

**Power supply unit PS 4**

<b>Feature</b>	<b>Value</b>
Power supply	100 - 240 V AC, 50-60 Hz
Output voltage	12 V DC, regulated
Output current	2500 mA
Operating temperature	0 - 45 °C
Relative humidity	10 to 95%, not condensed
Mains lead length	2,100 mm
Output cable length	1,350 mm
Approvals	MM, CE, FCC, UL, Level VI, FWGB, Approved Medical Device

**MLA8**

<b>Feature</b>	<b>Value</b>
Power supply $V_{in}$	12 V DC
Current consumption max. (incl. 8x EFL 3)	1240 mA
Operating temperature	0 - 50 °C
Relative humidity	10 to 95%, not condensed
Contact NC	24 V DC, 1 A max.
<b>Connections</b>	
Connection lead (0.5 m) with plug	AMP Mate-N-Lock, male
Socket voltage output	AMP Mate-N-Lock, female
Socket EFL 3 / EFL 3C	RJ 10
Socket EFL X	AMP Mate-N-Lock, female
Socket Data in	RJ 11
Socket Data out	RJ 11

**MLA 6P**

Feature	Value
Power supply $V_{in}$	12 V DC
Current consumption max. (incl. 6x EFL 3)	830 mA
Operating temperature	0 - 50 °C
Relative humidity	10 to 95%, not condensed
Contact NC	24 V DC, 1 A max.
<b>Connections</b>	
Connection lead (0.5 m) with plug	AMP Mate-N-Lock, male
Socket voltage output	AMP Mate-N-Lock, female
Socket EFL 3 / EFL 3C	RJ 10
Socket Data in (DFT)	Molex 87833-042

**CC 200 Powerbank**

Feature	Value
Power supply	12 V DC
Operating temperature	0 - 55 °C
Relative humidity	10 to 95%, not condensed
<b>Connections</b>	
(1x) plug for PS 4	AMP Micro, male
(2x) socket for FT 200 / MLA x	AMP Mate-N-Lock, female
(1x) jack plug for Powerbank	J210
Powerbank connection cable	L= 3000 mm
FT 200 / MLA x / PS 4 connection cable	L= 200 mm

**3.3 Functions**

Up to four

EFL 3 / EFL 3C furniture locks can be keyed alike and / or keyed to differ in parallel with the FT 200 / FT 200 CAP furniture terminal.

With additional MLA 6P / MLA 8 multi-lock adapters, more furniture locks can be implemented  
 ⇒ *9. Extensions and connections, page 70.*

In the event of a power failure, the locks retain the locking status which was present when the power failed.

**Keyed alike operation (= factory setting)**

An authorised user key simultaneously opens all locks connected to furniture terminal FT 200 / FT 200 CAP and, if applicable, multi-lock adapters MLA 6P / MLA 8.

## Keyed to differ operation

An authorised user key simultaneously unlocks only certain locks, even though several are connected to the FT 200 / FT 200 CAP furniture terminal, and also the MLA 6P / MLA 8 multi-lock adapters if necessary.

Lock allocation can take place in two different ways:

- by presenting the programming key card ⇒ several times [8.4.1 Allocating user keys by means of consecutive lock allocation, page 66](#)
- by unlocking the locks ⇒ [8.4.2 User key allocation by unlocking the locks, page 68](#)

## Latchbolt lock operation / self-locking action (= factory setting)

In latchbolt lock operation, the locks are unlocked during the open time. The locks then lock automatically once the open time has elapsed (self-locking action).

## Deadbolt lock operation (permanent open)

In latchbolt lock operation, all locks are permanently unlocked during the open time (permanent open). The locks are locked by presenting one of the user keys that is authorised for deadbolt lock operation again.

Deadbolt lock operation can be enabled in two ways:

- With appropriately programmed user keys ⇒ [6.3 Programming a user key with deadbolt lock function, page 61](#)
- By setting the FT 200 / FT 200 CAP furniture terminal to permanent deadbolt lock operation ⇒ [8.3 Programming permanent deadbolt lock operation, page 65](#)

Permanent deadbolt lock operation is then enabled for all locks and all authorised user keys. It is deactivated by re-entering an open time (⇒ [8.5 Adjusting the open time, page 69](#)) or by means of a complete reset (⇒ [12.2 Complete reset, page 78](#)).

732-22-024

## Operation with 2 antennas

Operation with 2 antennas can take place in two ways:

operation mode	Description
Parallel operation (standard)	<ul style="list-style-type: none"> <li>• Same functionality at both antennas</li> </ul>
Separate operation (macro)	<ul style="list-style-type: none"> <li>• The EFL 3 / EFL 3C outputs on the FT 200 / FT 200 CAP (or on the MLA 8 / MLA 6 P multi-lock adapters) can be allocated separately to both antennas. In this way, they can be operated independently of each other via antenna 1 or antenna 2. A macro is required for this application.</li> </ul>

HDE 04.10.2021

### 3.4 Factory settings

Parameter	Value
Open time (duration of unlocking period in latchbolt lock operation)	3 seconds
<ul style="list-style-type: none"> <li>The open time can be set to up to 30 seconds at one second intervals in stand-alone operation <math>\Rightarrow</math> 8.5 <i>Adjusting the open time, page 69.</i></li> <li>The open time can be extended to beyond 30 secs using the MDU 110 with special functions or macros.</li> </ul>	
Lock type	Latchbolt lock operation
Locking function	Keyed alike

### 3.5 Accessories

Accessories	Description
Programming key card	<ul style="list-style-type: none"> <li>Card for granting access authorisations</li> </ul>
Clearing key card	<ul style="list-style-type: none"> <li>Card for clearing access authorisations</li> </ul>
User key	<ul style="list-style-type: none"> <li>Electronic key</li> <li>Different designs are possible: key card, key tag, key fob, key wristband</li> </ul>
Macros	<ul style="list-style-type: none"> <li>On request <math>\Rightarrow</math> 3.1 <i>System overview, page 46</i></li> </ul>

## 4. Mounting and installation

732-22.024

The installation instructions for the system components can be found in separate documents. They can be obtained under the respective catalogue number at: [www.hafele.com](http://www.hafele.com)

Please pay attention to the following points when installing the system:



#### WARNING

#### Risk of life-threatening electric shock during assembly and installation work when the power plug is plugged in

The system must be currentless for the entire assembly and installation process.

- Never connect the power plug to the socket during assembly and installation.



The environmental conditions in the place of installation – for example, magnetic fields or metal materials – may impair the functionality of the system.

- Ensure that the system is installed in a suitable location.
- Set up a sample installation in the chosen location and test it out prior to carrying out the final installation.



After completing the assembly and installation work, do not plug in the power plug or the Powerbank. Connecting the system to the power supply launches the commissioning process automatically.

- Read chapter 5. *Commissioning, page 55* before connecting the power plug for the first time.

## 4.1 Installation references

Component	Installation reference
Entire system	<ul style="list-style-type: none"> <li>When installing the FT 200 / FT 200 CAP furniture terminal, please ensure that there is an inspection opening available for emergency cases such as emergency opening of the EFL 3 / EFL 3C or for exchanging the FT 200 / FT 200 CAP.</li> <li>Fix electrical cables in place once they have been laid in the furniture (e.g. with cable ties).</li> <li>Electrical cables must not be under tension.</li> <li>Do not bend electrical cables.</li> </ul>
EFL 3 / EFL 3C	<ul style="list-style-type: none"> <li>Recommendation: carry out a trial mounting before installing the EFL 3 / EFL 3C.</li> <li>Only install the locking component of the EFL 3 / EFL 3C at the installation location.</li> <li>Only adjust the lock of the EFL 3 / EFL 3C at the installation location and readjust if necessary after loading the furniture item.</li> <li>Ensure that there are no metal panels mounted between the locking component and lock of the EFL 3 / EFL 3C.</li> <li>The locking component of the EFL 3 / EFL 3C can be screwed on with a furniture handle (hole spacing 32 mm) at the opposite side.</li> <li>The EFL 3 / EFL 3C is suitable for furniture constructions with soft closing and self-closing mechanism.</li> <li>The EFL 3 / EFL 3C is not suitable for drawers and hinged doors with Push-to-Open function.</li> </ul>
FAN 200 antenna	<ul style="list-style-type: none"> <li>Ensure that the FAN 200 antenna is not located next to power lines. The magnetic field of the power lines can impair the antenna range.</li> <li>Ensure that the FAN 200 antenna is not mounted behind or on metal surfaces or behind mirrors.</li> </ul>
CC 200 Powerbank	<ul style="list-style-type: none"> <li>In order to be able to connect a Powerbank in the event of a power failure, lead the connector for the Powerbank out of the furniture (e.g. via a maintenance flap or similar).</li> <li>With the CC 200 Powerbank cable connected, a maximum of one additional FT 200 or one MLA 6P or one MLA 8 (incl. EFL 3) can be connected if an approved Powerbank is used.</li> </ul>

73222.024

HDE 04.10.2021

## 5. Commissioning

The system is supplied in simple operation mode for stand-alone operation (SA). This document describes the commissioning process for stand-alone operation only.

Start-up details for using the system with Dialock software applications can be found in the Dialock software documentation.

- i** The start-up process begins automatically once the power plug has been connected. The individual steps must be carried out immediately and in sequence. For safety reasons, the initial start-up can only take place within 5 seconds of plugging in the power plug.
  - Read through the steps carefully before commissioning.
  - Have both master keys ("green" programming key and "red" erasing key) at the ready before start-up commences.
  - Perform the work operations quickly and without interruptions.
- i** If the commissioning time window is exceeded:
  1. Pull the power plug.
  2. Wait until the LED goes out.
  3. Restart the commissioning process.
- i** Alternatively, start-up can also take place by pressing the Reset button (⇒ 9. *Extensions and connections, page 70*).
  1. Press and hold down the reset button only until the first, short acoustic signal.  
**ATTENTION!** If the button is pressed for longer, a reset will take place (⇒ 12. *Reset, page 76*).
- i** Recommendation: carry out a firmware update with the MDU 110 mobile programming unit before starting up in order to ensure that the most up-to-date DIALOCK firmware is on the terminal.

## 5.1 Commissioning app (Häfele My Dialock Manager)

The following functions are available with the Häfele My Dialock Manager app:

Basic function:

- Programming and commissioning of up to three terminals,
- Programming of user keys (unlimited number),
- Use of the door open alarm (duration 20 seconds, cannot be edited),

Full range of functions (licence-dependent),

- Hardware programming including specific device settings,
- Locking plan creation including time models,
- Simple key generation,
- Management of access rights and deletion of transponders,
- Firmware updates for the terminals via the mobile terminal device.

Depending on the size of the project and the scope of the system, there are various basic and additional functions that can be activated using a project licence key that is subject to a fee.

Further information on how to use the Häfele My Dialock Manager app is available at:



[https://apps.apple.com/de/developer/h%C3%A4fele-gmbh-co-kg/  
id432533773](https://apps.apple.com/de/developer/h%C3%A4fele-gmbh-co-kg/id432533773)



[https://play.google.com/store/apps/  
developer?id=H%C3%A4fele+GmbH+%26+Co+KG&hl=de](https://play.google.com/store/apps/developer?id=H%C3%A4fele+GmbH+%26+Co+KG&hl=de)



Stand-alone operation will be permanently shut off once the product is put into operation for the first time using the Häfele My Dialock Manager app.  
After that, reactivating this operation mode is only possible after a complete reset.

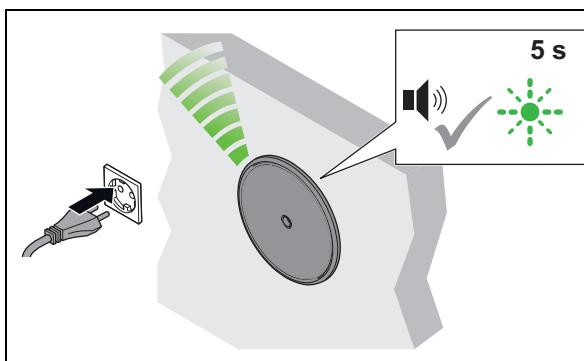
Prerequisites:



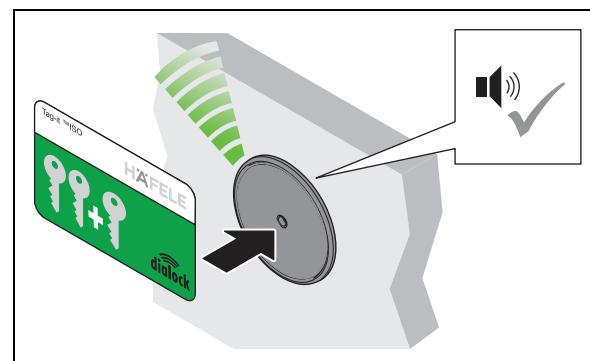
Programming key card



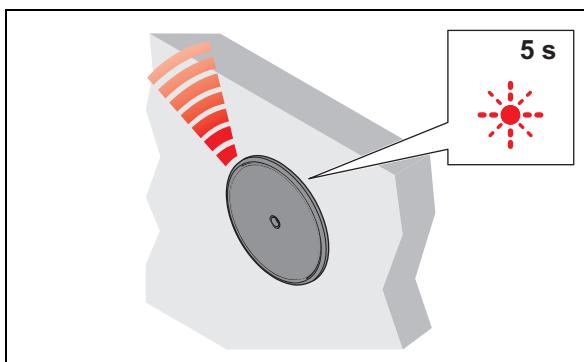
Clearing key card



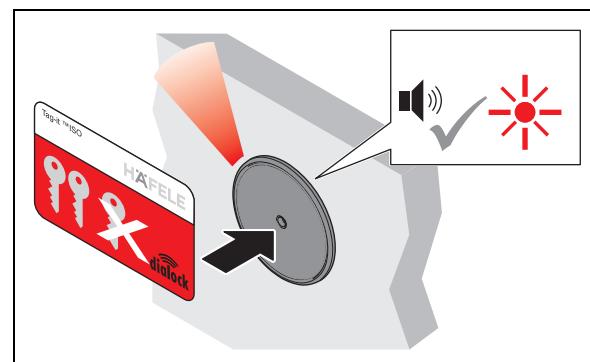
1. Plug in the power plug.  
► Acoustic signal is heard. LED flashes green for max. 5 seconds.



2. Hold the programming key card in front of the antenna during this 5-second period.  
► Acoustic signal is heard.



3. Remove programming key card.  
► LED flashes red for max. 5 seconds.



4. Hold the clearing key card in front of the antenna during this 5-second period.  
► Acoustic signal is heard. LED illuminates red. System is in operation.

## 6. Programming user keys

An authorised user key is needed to unlock a EFL 3 / EFL 3C lock. Locking authorisation must be allocated to this user key.

The following user keys can be programmed:

User key	Locking authorisa-tion	Functionality
Normal user key	Latchbolt lock operation (with self-locking action)	<ul style="list-style-type: none"> <li>• Opens all locks for which the user key has locking authorisation.</li> <li>• Open locks then lock automatically once the open time has elapsed.</li> </ul>
Privileged user key	Latchbolt lock operation (with self-locking action)	<ul style="list-style-type: none"> <li>• Functions like a normal user key</li> <li>• Also required by privileged persons for configuring the furniture terminal with the MDU 110 data transfer unit.</li> </ul>
User key with deadbolt lock function	Deadbolt lock operation (permanent open)	<ul style="list-style-type: none"> <li>• Functions like a normal user key</li> <li>• Also has a permanent open function: If the user key is held in front of the antenna for a longer period, the open locks are set to "permanent open".</li> <li>• Lock open locks by presenting a user key authorised for the deadbolt lock function again (&gt; 2 sec.)</li> </ul>



The locking authorisations for the user keys are retained after a power failure and do not have to be reset.

## 6.1 Programming a normal user key

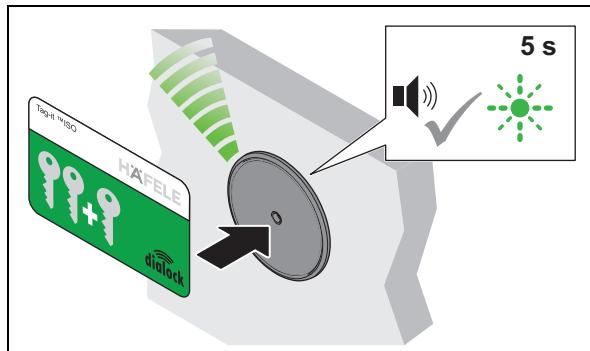
Prerequisites:



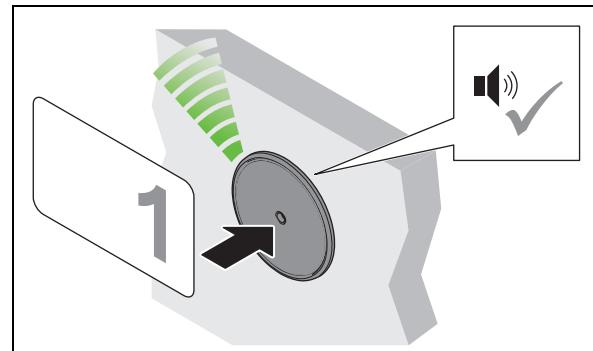
Programming key card



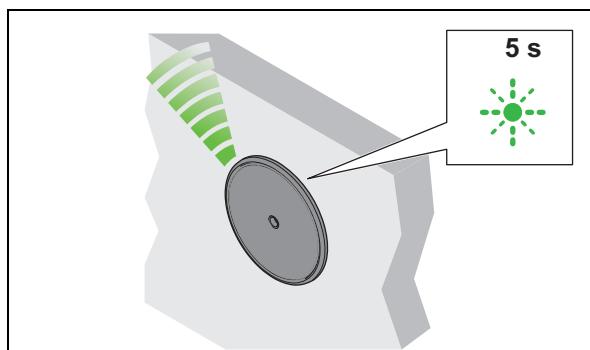
User keys



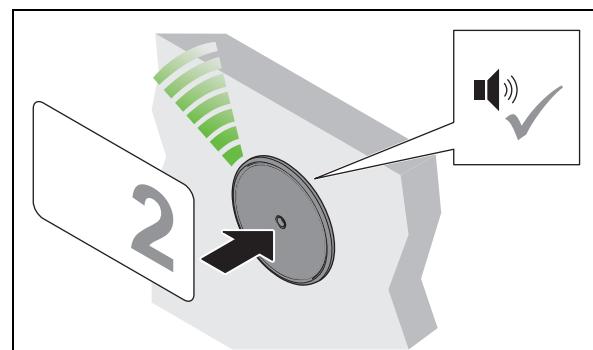
1. Hold the programming key card in front of the antenna.  
► Acoustic signal is heard. LED flashes green for max. 5 seconds.



2. Hold the user key in front of the antenna during this 5-second period.  
► Acoustic signal is heard. Locking authorisation is allocated.



3. Remove user key.  
► LED flashes green for a further 5 seconds.



4. Hold another user key in front of the antenna during this 5-second period.

5. Repeat steps 2 to 4 until all necessary user keys have been granted the locking authorisation.
6. The LED switches to red once the 5 seconds have elapsed.

## 6.2 Programming a privileged user key

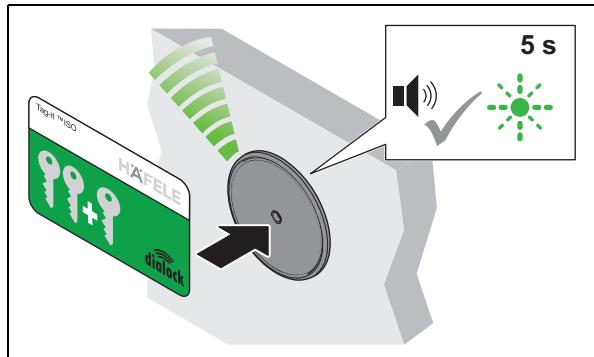
Prerequisites:



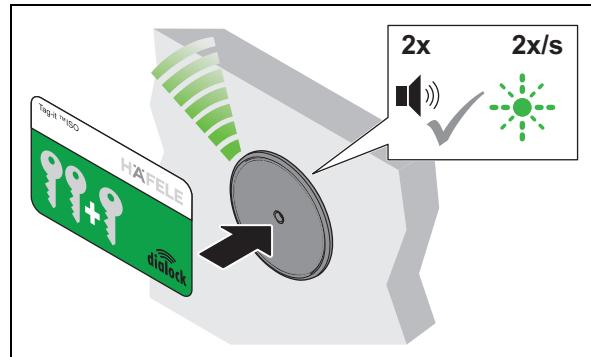
Programming key card



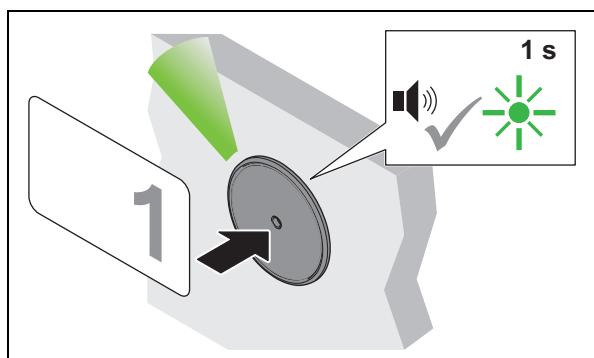
User keys



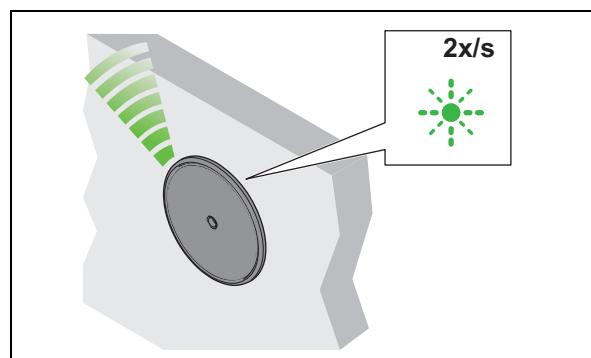
1. Hold the programming key card in front of the antenna.  
► Acoustic signal is heard. LED flashes green for max. 5 seconds.



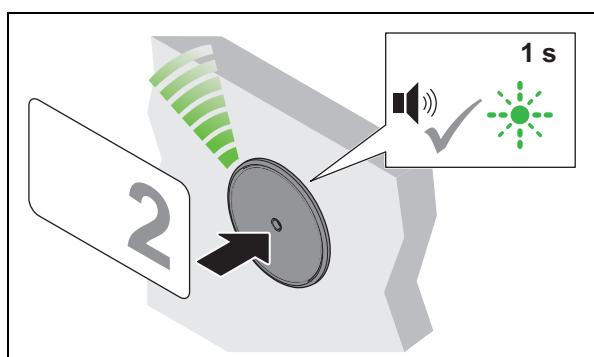
2. Hold the programming key card in front of the antenna again during this 5-second period.  
► Acoustic signal is heard twice. LED flashes green more slowly.



3. Hold the user key in front of the antenna during the 5-second period.  
► Acoustic signal is heard. LED briefly illuminates green. Locking authorisation is allocated.



4. Remove user key.  
► LED continues to flash green slowly.



5. Hold another user key in front of the antenna during the 5-second period.
6. Repeat steps 3 to 5 until all necessary user keys have been granted the locking authorisation.
7. The LED switches to red once the 5 seconds have elapsed.

### 6.3 Programming a user key with deadbolt lock function

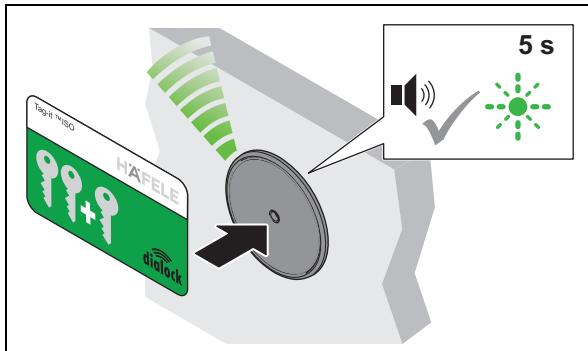
Prerequisites:



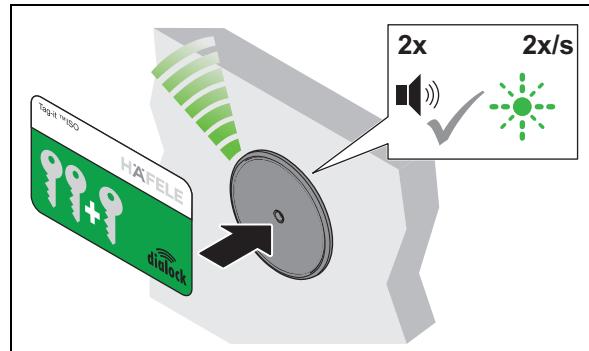
Programming key card



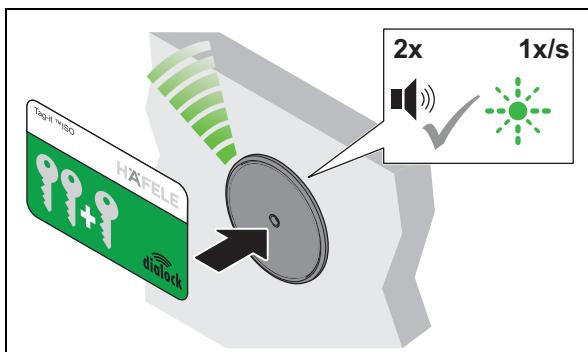
User keys



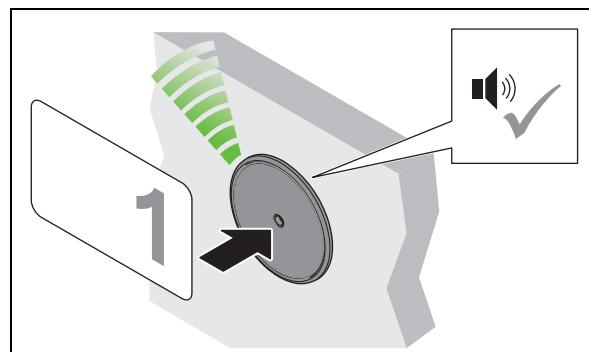
1. Hold the programming key card in front of the antenna.  
► Acoustic signal is heard. LED flashes green for max. 5 seconds.



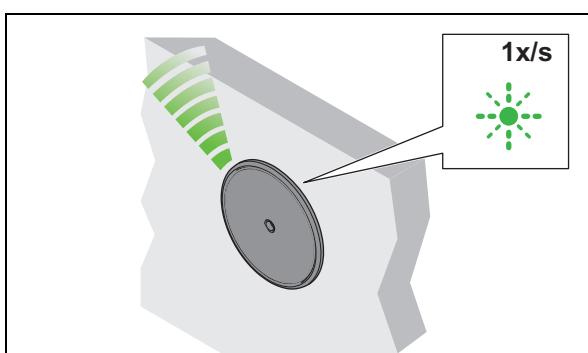
2. Hold the programming key card in front of the antenna again during this 5-second period.  
► Acoustic signal is heard twice. LED flashes green more slowly.



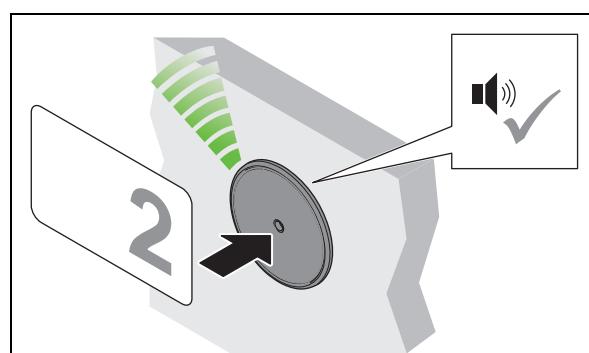
3. Hold the programming key card in front of the antenna again during the 5-second period.  
► Acoustic signal is heard twice. LED flashes green even more slowly.



4. Hold the user key in front of the antenna during the 5-second period.  
► Acoustic signal is heard. Locking authorisation is allocated.



5. Remove user key.  
► LED continues to flash green slowly.

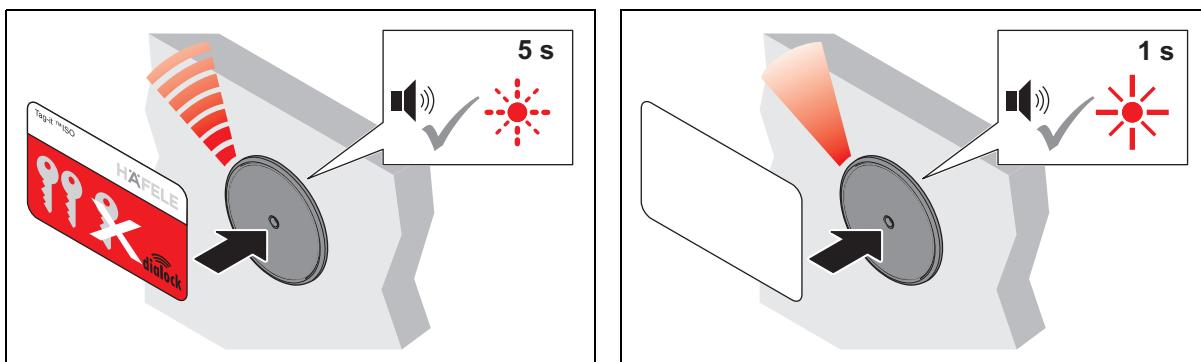
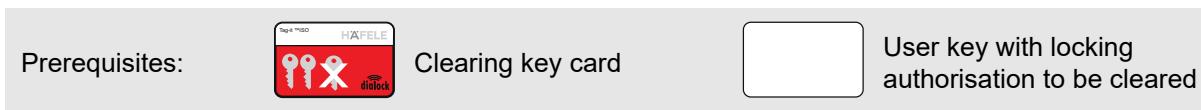


6. Hold another user key in front of the antenna during the 5-second period.

7. Repeat steps 4 to 6 until all necessary user keys have been granted the locking authorisation.
8. The LED switches to red once the 5 seconds have elapsed.

## 7. Clearing locking authorisations

### 7.1 Erasing the locking authorisation of an individual user key

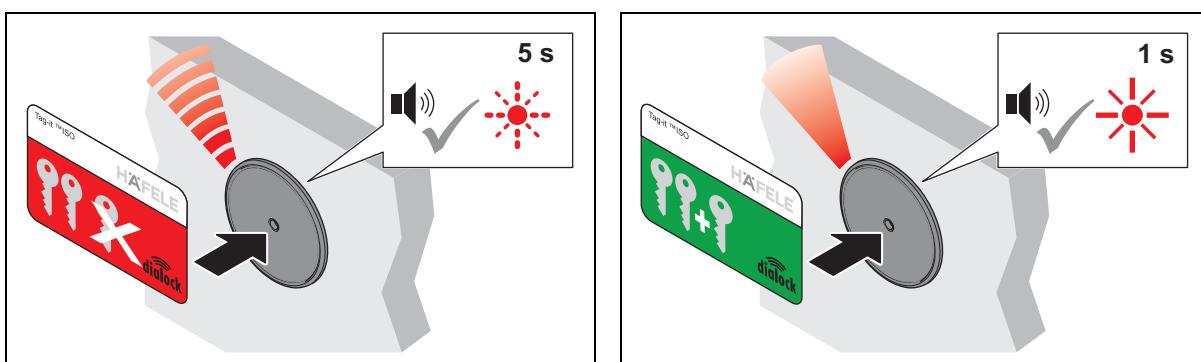
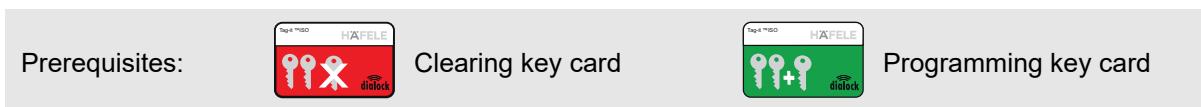


1. Hold the clearing key card in front of the antenna.  
► Acoustic signal is heard. LED flashes red for max. 5 seconds.

2. Hold the user key in front of the antenna during this 5-second period.  
► Acoustic signal is heard. LED briefly illuminates red. Locking authorisation of this user key is cleared.

### 7.2 Clearing locking authorisations for all user keys

If a user key is lost, the locking authorisations of all user keys must be cleared. The locking authorisations can then be granted again ⇒ *6. Programming user keys, page 58*.



1. Hold the clearing key card in front of the antenna.  
► Acoustic signal is heard. LED flashes red for max. 5 seconds.

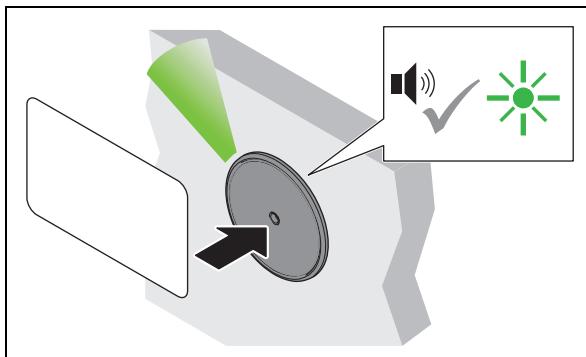
2. Hold the programming key card in front of the antenna during the 5-second period.  
► Acoustic signal is heard. LED briefly illuminates red.  
The locking authorisations of all user keys are cleared.

## 8. Operation

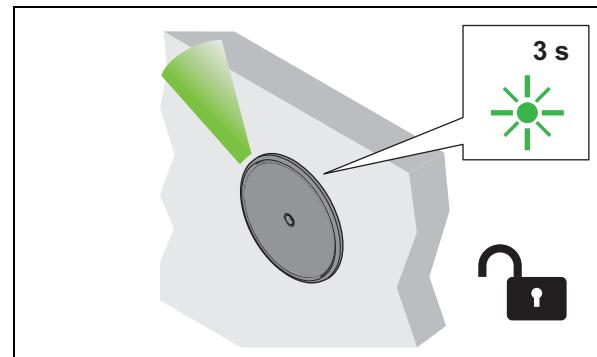
### 8.1 Operation with a normal user key

Prerequisites:

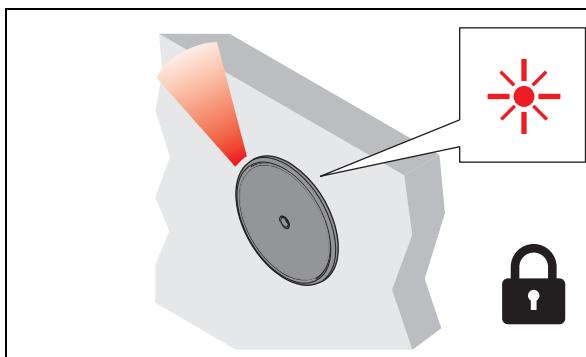
Normal user key with "latchbolt lock operation" locking authorisation  
(self-locking action)



1. Hold the user key in front of the antenna.
  - Acoustic signal is heard. LED switches to green.



2. Remove user key.
  - LED illuminates green. All locks are open during the open time.



3. The locks lock automatically once the open time has elapsed.
  - LED switches to red.

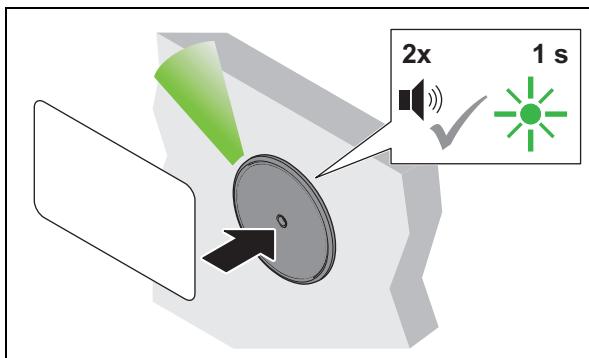
## 8.2 Operation with user key with deadbolt lock function

Prerequisites:

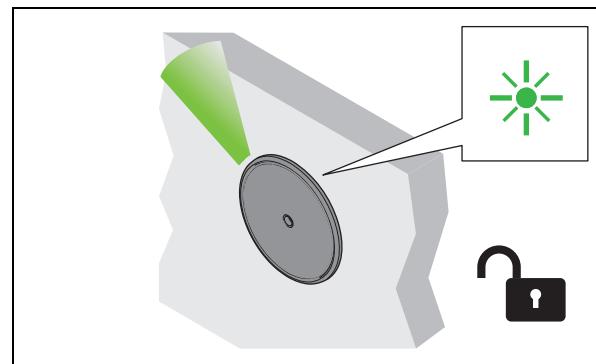


User key with deadbolt lock function (permanent open)

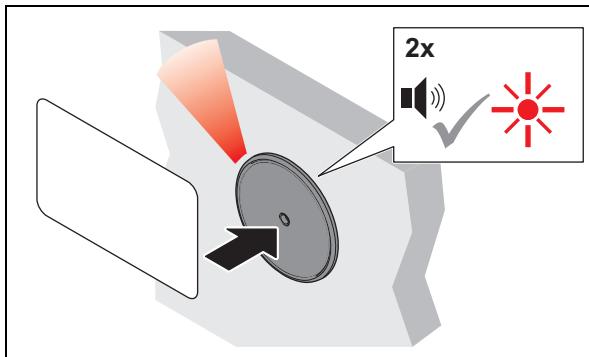
- i** A user key with the deadbolt lock function also has the “latchbolt lock operation” locking authorisation (self-locking action) ⇒ *8.1 Operation with a normal user key, page 63*



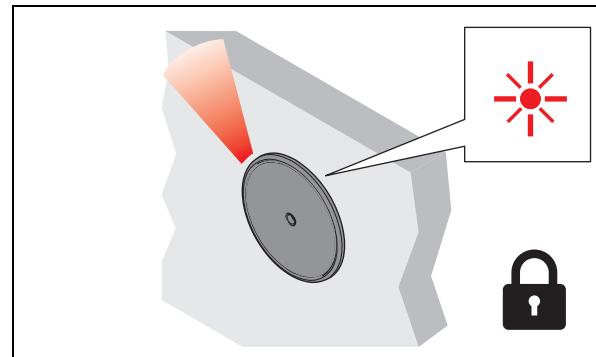
1. Hold the user key in front of the antenna for at least 2 seconds.  
► Acoustic signal is heard. LED switches to green. Acoustic signal is heard again. LED briefly illuminates green.



2. Remove user key.  
► LED illuminates green permanently. All locks are permanently open (“permanent open”).



3. Hold the user key in front of the antenna for at least 2 seconds to close.  
► Acoustic signal is heard. LED continues to illuminate green. Acoustic signal is heard again. LED switches to red.



4. Remove user key.  
► LED illuminates red permanently. All locks are locked.

### 8.3 Programming permanent deadbolt lock operation

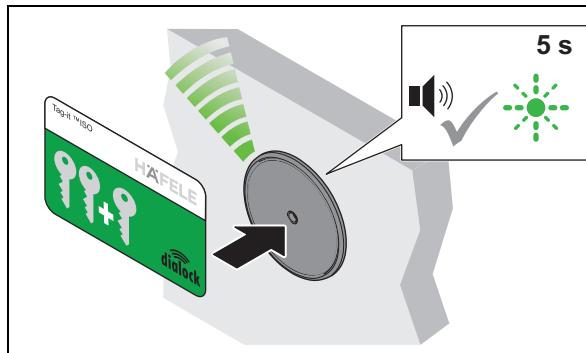
Prerequisites:



Programming key card

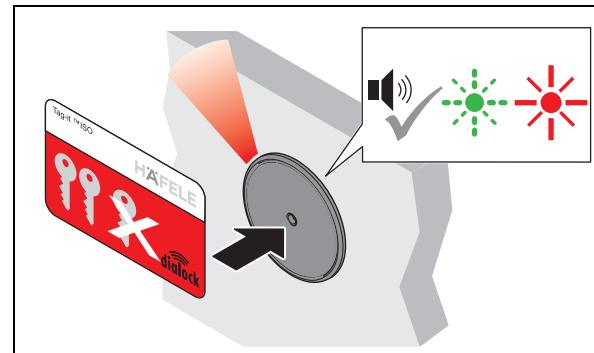


Clearing key card



1. Hold the programming key card in front of the antenna.

► Acoustic signal is heard. LED flashes in green for 5 seconds.

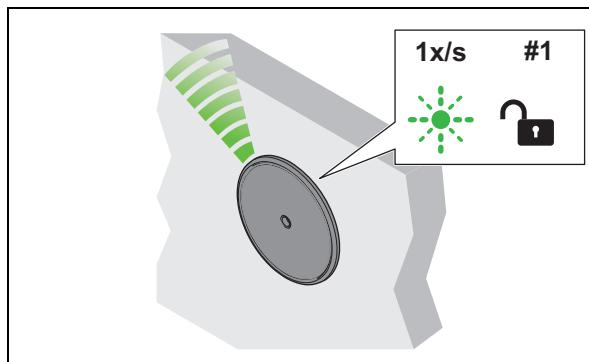
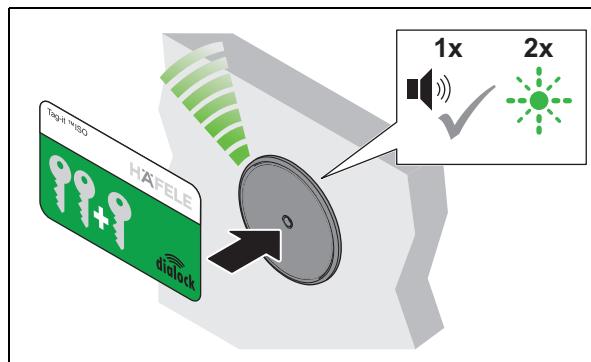
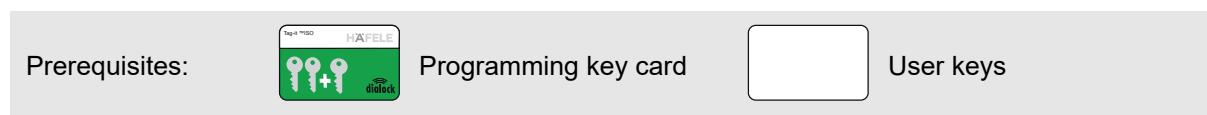


2. Hold the clearing key card in front of the antenna during this 5-second period.

► Acoustic signal is heard. LED continues to flash in green and then goes to continuous red.  
► The FT 200 / FT 200 CAP is now set to permanent deadbolt lock operation.

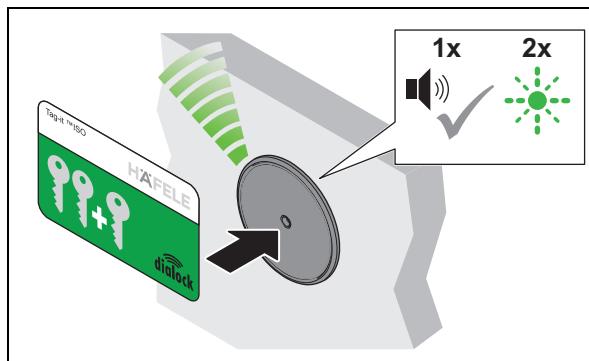
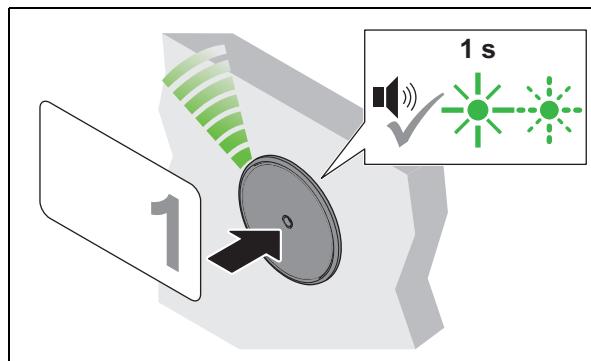
## 8.4 Allocating the user keys in keyed to differ operation (FT 200 + max. 1x MLA 8)

### 8.4.1 Allocating user keys by means of consecutive lock allocation



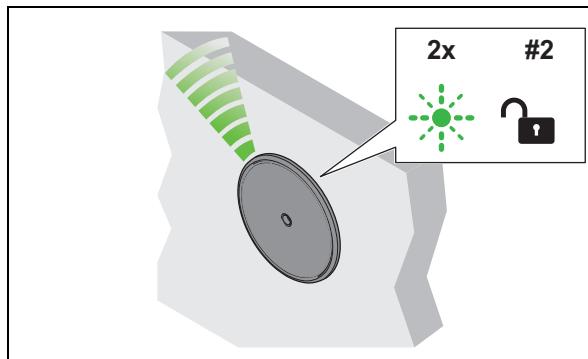
1. Hold the programming key card in front of the antenna until the acoustic signal sounds 2x and the LED illuminates in green.

2. Remove programming key card.
  - LED flashes in green 1x/sec. for approx. 15 seconds.
  - Lock 1 is unlocked.

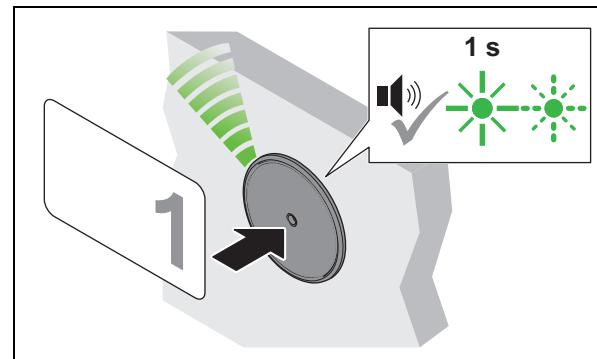


3. Hold all user keys which are to be given the locking authorisations for lock 1 in front of the antenna one after another.
  - An acoustic signal sounds as confirmation, and the LED briefly illuminates in green.
  - Lock 1 is now allocated to these user keys. LED continues to flash in green 1x/sec. for approx. 15 seconds.

4. Hold the programming key card in front of the antenna again until the acoustic signal sounds once. The LED flashes in green 2x in succession.



5. Remove programming key card.
- ▶ The LED continues to flash in green 2x in succession for approx. 15 seconds.
  - ▶ Lock 2 is unlocked.



6. Hold all user keys which are to be given the locking authorisations for lock 2 in front of the antenna one after another.
- ▶ An acoustic signal sounds as confirmation, and the LED briefly illuminates in green.
  - ▶ Lock 2 is now allocated to these user keys. The LED continues to flash in green 2x in succession for approx. 15 seconds.

7. Repeat steps 4 to 6 until the required user keys have been allocated to all locks.
- ▶ The LED then illuminates permanently in red.

**i** If no locking authorisation is to be allocated to a lock, the programming key card must be presented again rather than the user key.

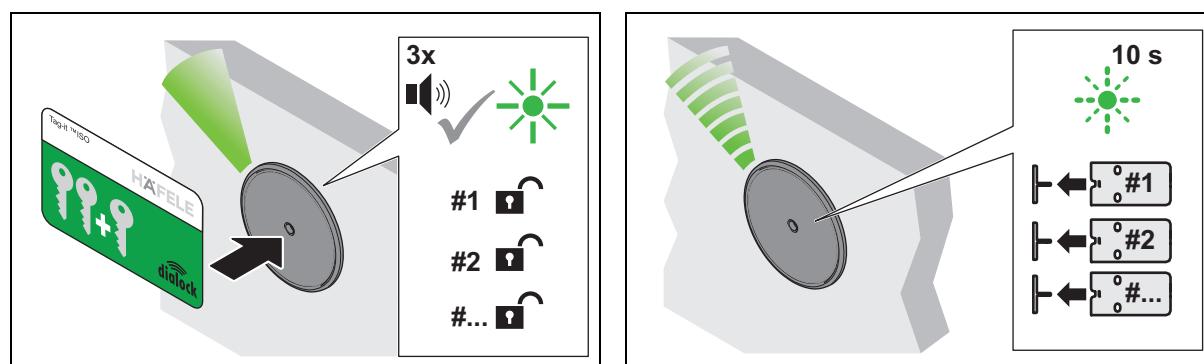
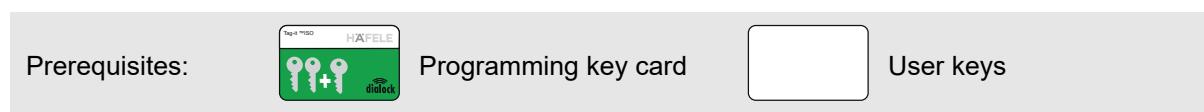
Each time the programming key card is presented again, the next lock is selected. Confirmation takes place by means of appropriate flashing of the LED (3x flashes for lock 3, 4x flashes for lock 4 etc.).

**The programming key card is presented to select the required lock (max. 12).  
The selected lock is allocated to the required user key with the user key.**

**i** If no programming key card or user key is presented within approx. 15 sec. during the programming procedure, programming mode ends and the LED switches to red. If the allocation of user keys is not yet complete, the programming procedure can be restarted.

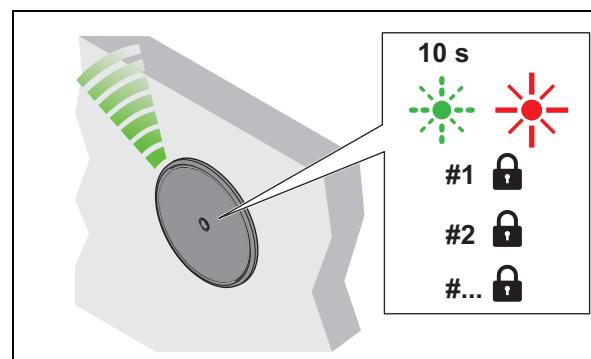
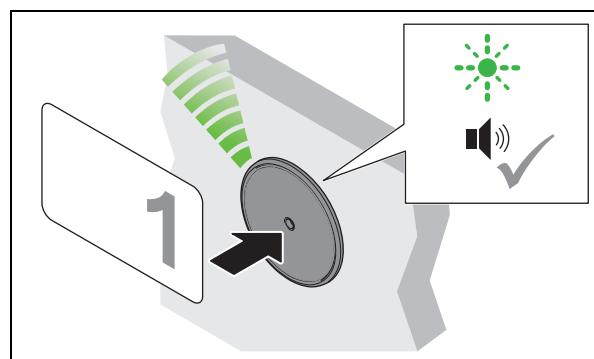
#### 8.4.2 User key allocation by unlocking the locks

- i** In keyed different operation, a maximum of one MLA 8 can be connected to the FT 200.
- i** Locks which are not to be allocated to the respective user key must be safeguarded against unintentional unlocking (e.g. with a small wedge, adhesive tape or the like).
- i** Several user keys can be allocated to one lock.  
Example:
  - User key 1: Locks 1, 3, 5
  - User key 2: Locks 3, 5, 7, 10
  - User key 3: Locks 1, 2, 5, 10, 12



The programming mode for normal user keys is now active for 10 seconds and the LED flashes in green.

2. Manually unlock all locks to which the user key is to be allocated.



5. Lock all unlocked locks manually.

73222.024

HDE 04.10.2021

- i** If no lock is unlocked when the user key is presented, an acoustic signal will sound:
- Two short acoustic signals sound and the LED switches briefly to red.

## 8.5 Adjusting the open time

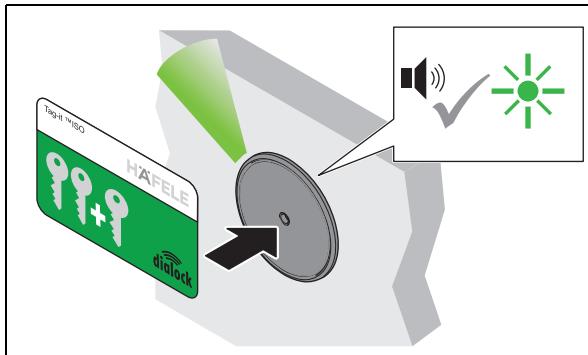
Prerequisites:



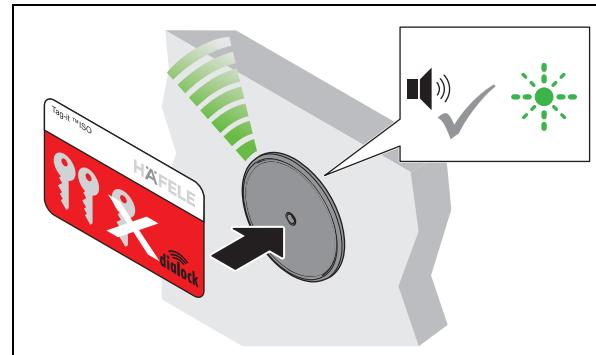
Programming key card



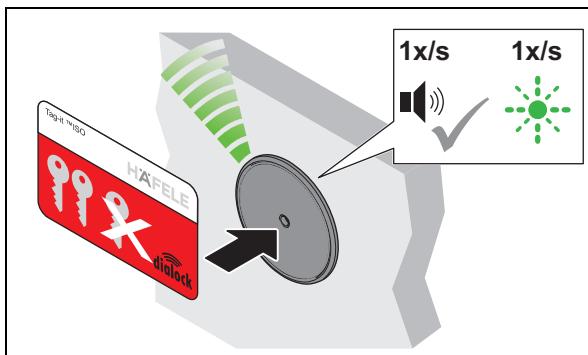
Clearing key card



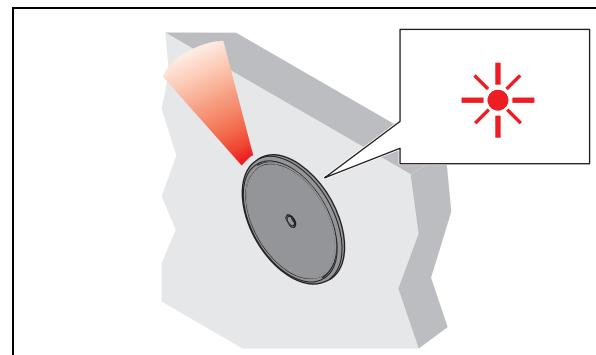
1. Hold the programming key card in front of the antenna.  
► Acoustic signal is heard. LED illuminates green.



2. Hold the clearing key card in front of the antenna.  
► Acoustic signal is heard. The LED flashes quickly in green.



3. Hold the clearing key card in front of the antenna again.  
► An acoustic signal is heard at one second intervals.  
► The LED flashes in green in parallel to the acoustic signal every second (max. 30 sec.).



4. Remove clearing key card after the required time.  
► The LED illuminates permanently in red.  
► The open time is set for all locks and authorised user keys.

- i** The open time can be adjusted at any time, and is also retained after a power supply interruption or a simple reset.

The open time can be extended beyond 30 sec. with the MDU 110 using a special function or a macro (⇒ *Macros, page 48*).

After a complete reset or setting the FT 200 / FT 200 CAP furniture terminal to "permanent deadbolt lock operation", the set opening time is cleared and the factory setting of 3 sec or deadbolt lock operation are activated.

## 9. Extensions and connections

The system can be extended. The following connections are available on the FT 200 / FT 200 CAP furniture terminal:

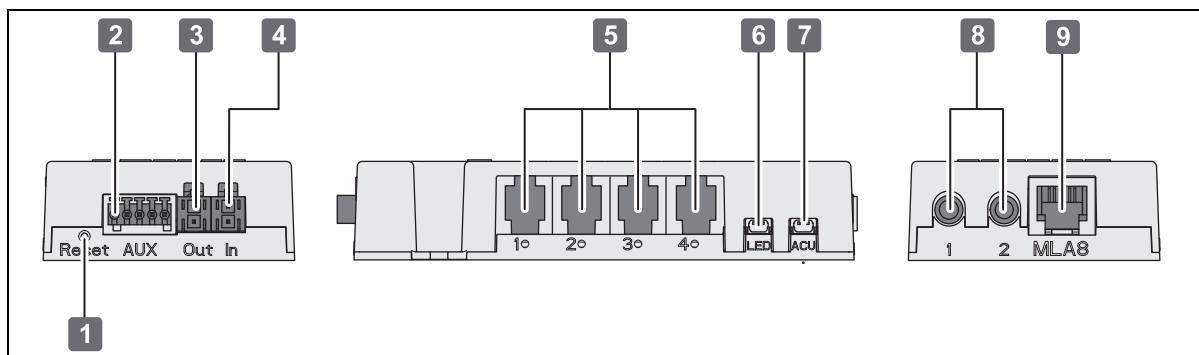


Fig. 2: FT 200 / FT 200 CAP connections

Connection	Description
1 Reset button	• Reset ⇒ 12. Reset, page 76
2 Potential-free input/output	• Relay output port NO, NC, COM • Digital input port • Connection via separate terminal clamp (green) • Macros required • ⇒ 10. Installation examples, page 71
3 Power supply output	• ⇒ 3.2 Technical data, page 49
4 Power supply input	• ⇒ 3.2 Technical data, page 49
5 Furniture lock EFL 3 / EFL 3C	• Basic components ⇒ 3.1 System overview, page 46
5 MLA 6P multi-lock adapter	• Extension ⇒ 3.1 System overview, page 46
6 Signal generator, visual (LED)	• Extension ⇒ 3.1 System overview, page 46
7 Acoustic signal generator (105 dB)	• Extension ⇒ 3.1 System overview, page 46
8 Antenna FAN 200	• Basic components ⇒ 3.1 System overview, page 46
9 Multi-lock adapter MLA 8	• Extension ⇒ 3.1 System overview, page 46

73222.024

### 9.1 Connections to the potential free input/output

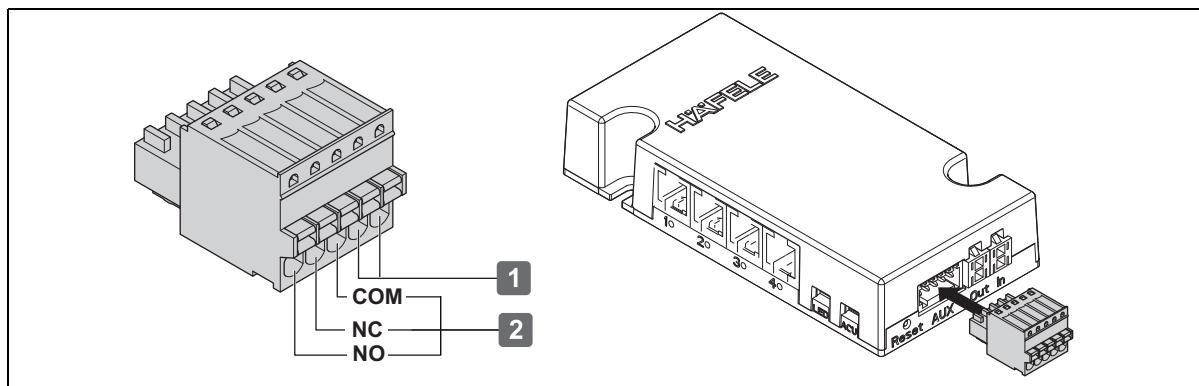


Fig. 3: Connections to the potential free input/output

Connection	Description
1 Input	• e.g. switches
2 NO, NC, COM	• Relay (e.g. for alarm system; macro required)

HDE 04.10.2021

## 10. Installation examples

Installation is dependent on:

- The installation situation
- the components in use

### 10.1 Alarm on FT 200 / FT 200 CAP

Signal in the event of a break-in or unauthorised unlocking of an EFL 3 / EFL 3C by connecting an alarm system to the FT 200 / FT 200 CAP (macro required).

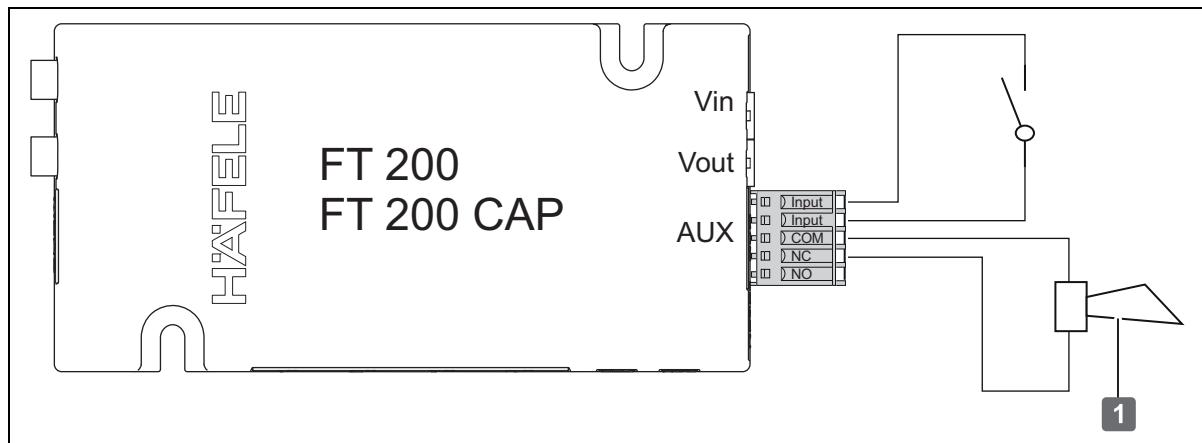


Fig. 4: Installation example 1 - Alarm [1] at FT 200 / FT 200 CAP

732.22.024

### 10.2 FT 200 / FT 200 CAP as a switching device for the alarm

FT 200 / FT 200 CAP only activates the alarm if all EFL 3 / EFL 3C are locked.

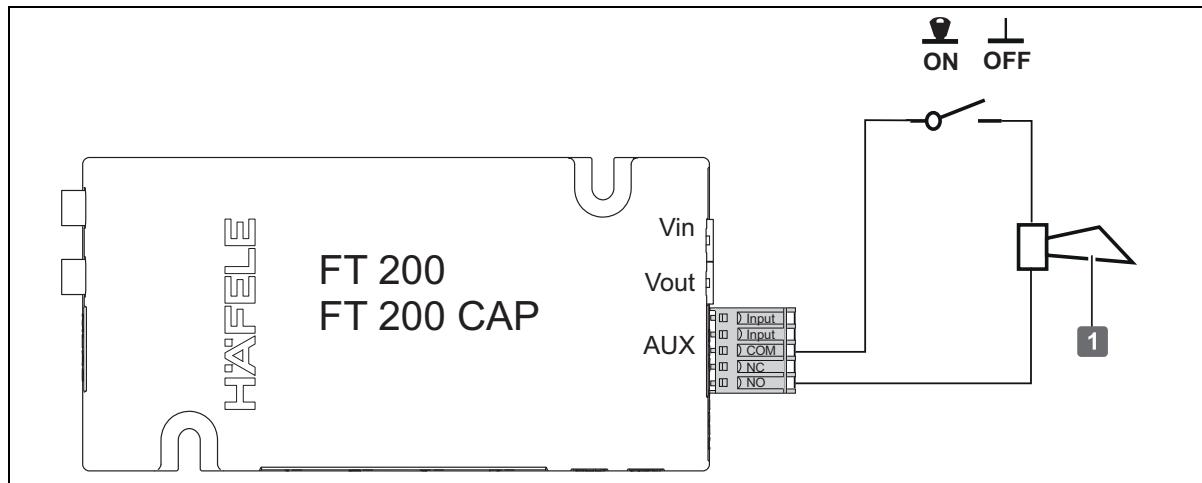


Fig. 5: Installation example 2 - FT 200 / FT 200 CAP as a switching device for the alarm [1]

HDE 04.10.2021

### 10.3 One MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation

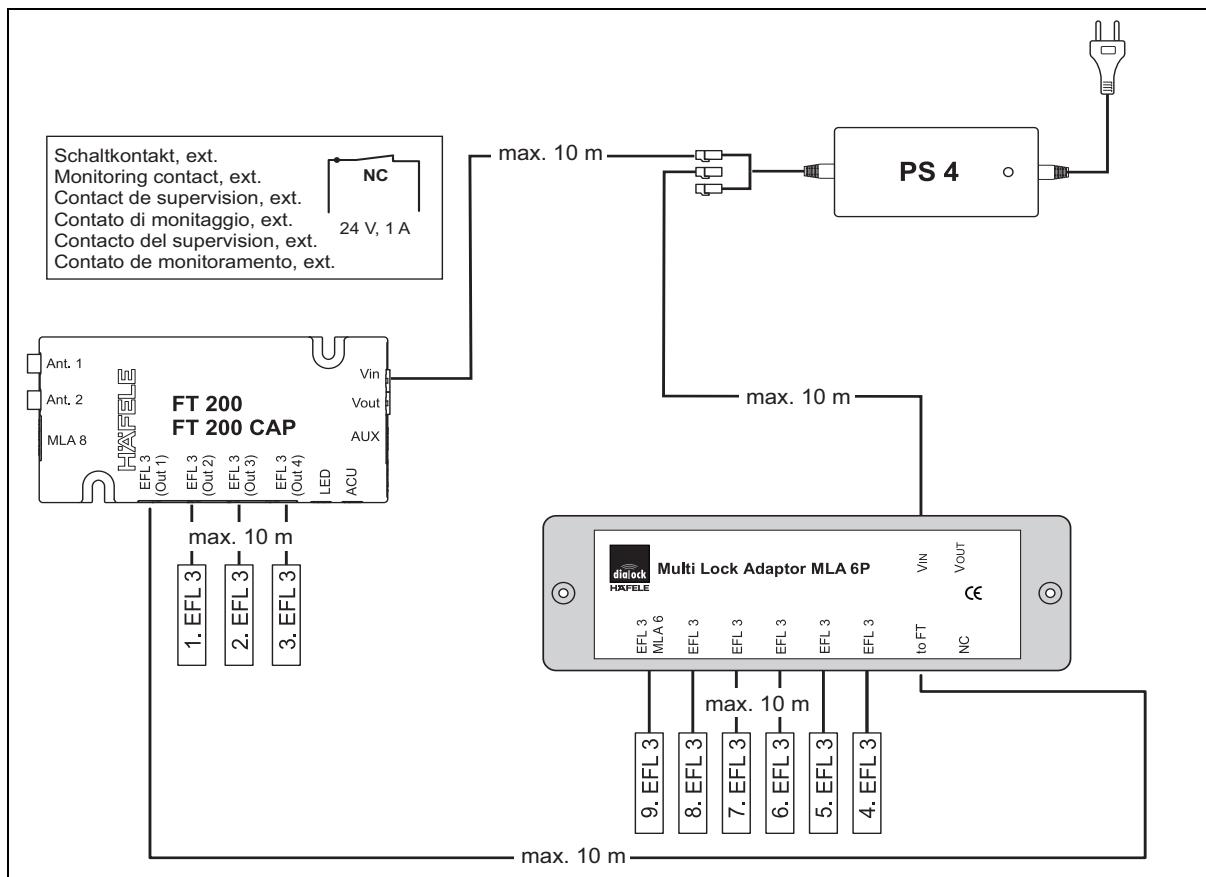


Fig. 6: Installation example 3 - One MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation.

## 10.4 Several MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation

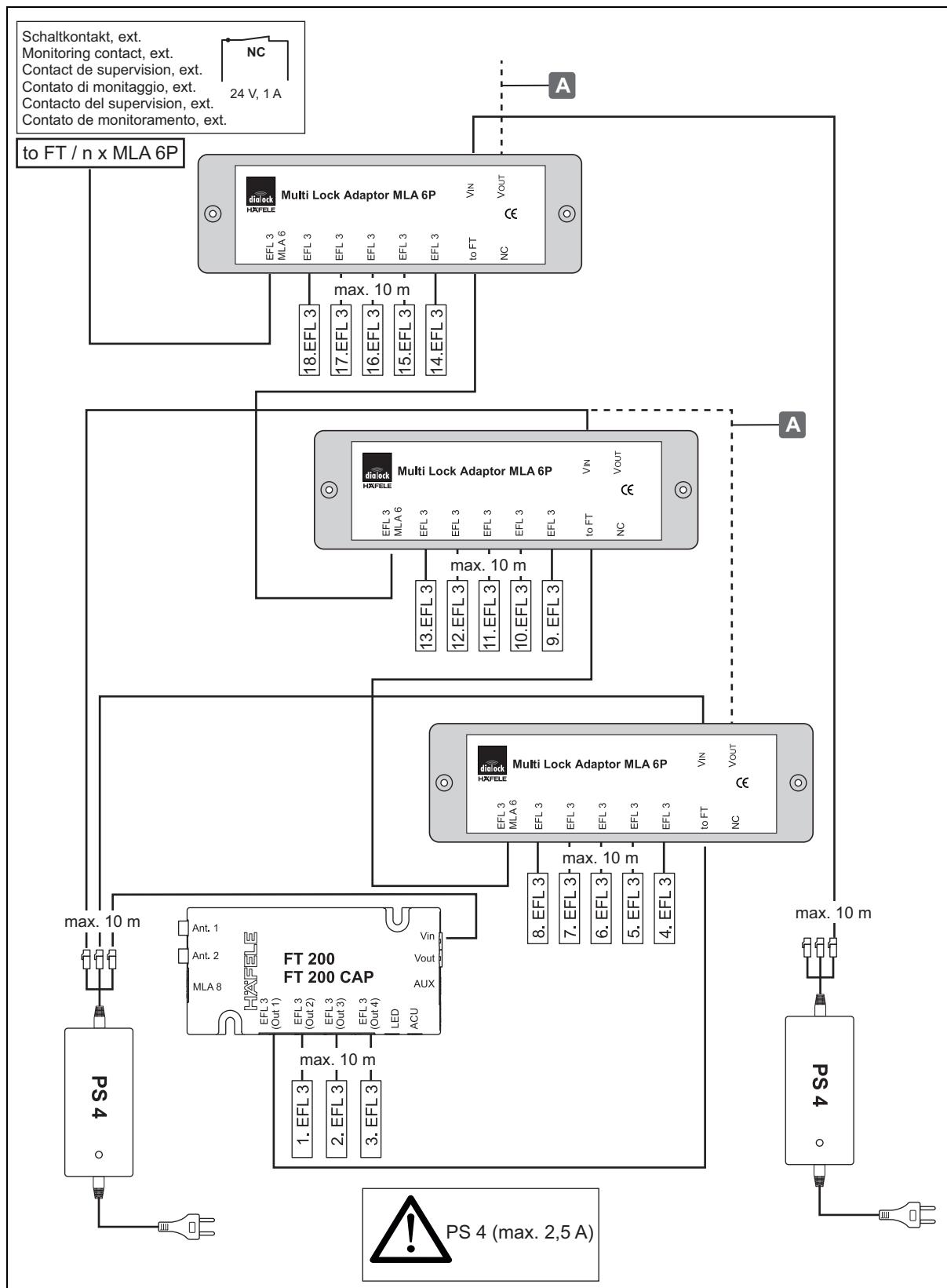


Fig. 7: Installation example 4 - Several MLA 6P at the FT 200 / FT 200 CAP in keyed alike operation.

The voltage supply of multi-lock adapter MLA 6P can be provided directly via power supply unit PS 4 or (max. 2x) from MLA 6P to MLA 6P **A**.



Attention: please note the rated values of the system components!

⇒ 3.2 Technical data, page 49

## 10.5 One MLA 8 at the FT 200 / FT 200 CAP in keyed alike and/or keyed to differ operation

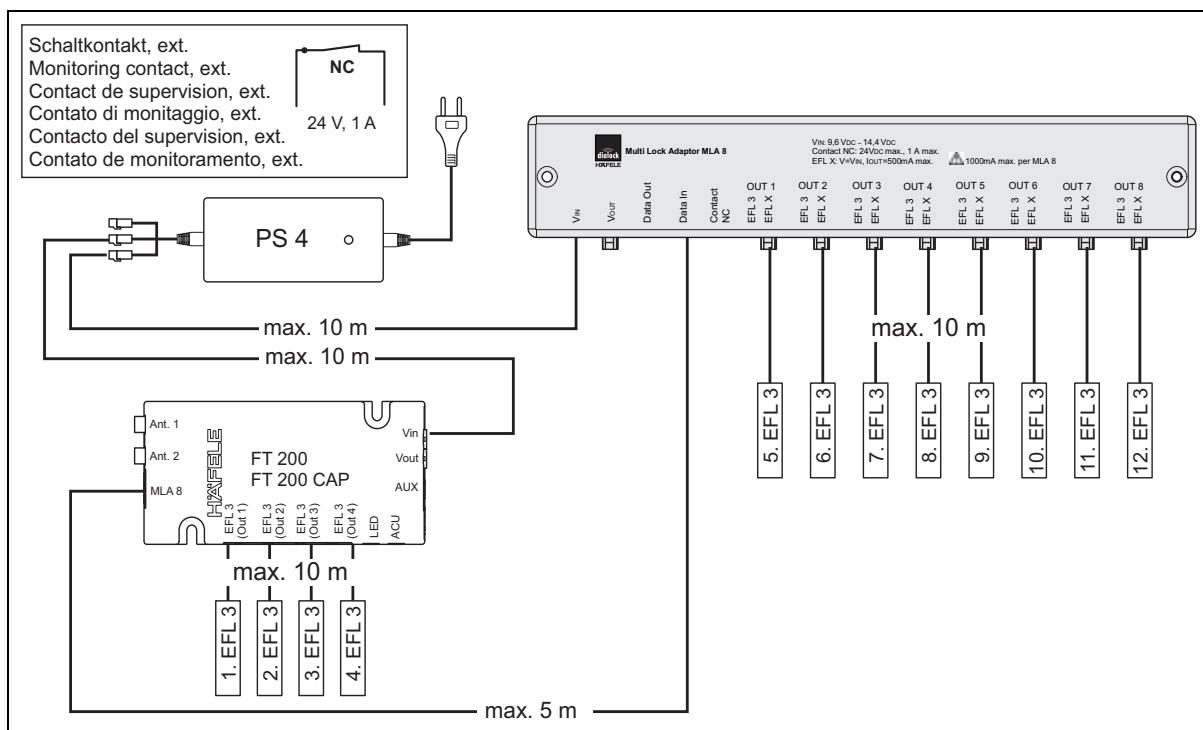


Fig. 8: Installation example 5 - One MLA 8 at the FT 200 / FT 200 CAP in keyed alike and/or keyed to differ operation.

- i** In keyed different operation, a maximum of one MLA 8 can be connected to the FT 200.

## 10.6 Several MLA 8 at the FT 200 / FT 200 CAP in keyed alike operation

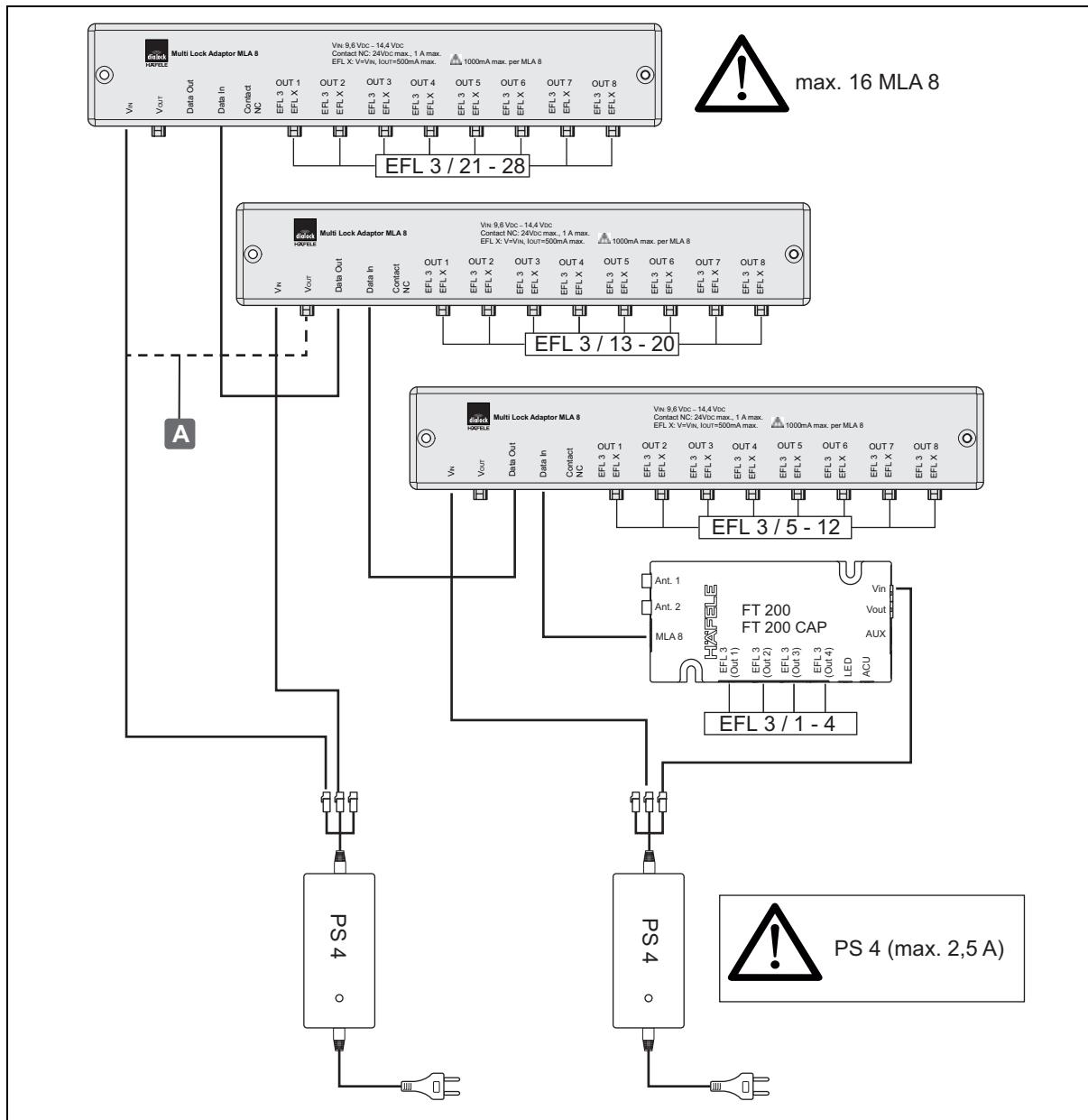


Fig. 9: Installation example 6 - Several MLA 8 at the FT 200 / FT 200 CAP in keyed alike operation.

The voltage supply can be provided directly via the PS 4 power supply or (max. 1x) from MLA 8 to MLA 8 **A**. A maximum of 16 MLA 8 can be connected in this way.



Attention: please note the rated values of the system components!  
 ⇒ 3.2 Technical data, page 49

## 11. Troubleshooting

Fault when opening	Possible cause	Remedy
Acoustic signal is heard twice.	<ul style="list-style-type: none"> <li>User key is not authorised.</li> </ul>	<ul style="list-style-type: none"> <li>Program the user key. ⇒ <i>6. Programming user keys, page 58</i></li> </ul>
LED for the FAN 200 antenna does not switch from red to green.	<ul style="list-style-type: none"> <li>Distance between user key and antenna too great.</li> <li>User key is not authorised.</li> </ul>	<ul style="list-style-type: none"> <li>Observe the maximum distance of 25 mm between the user key and antenna.</li> <li>Program the user key. ⇒ <i>6. Programming user keys, page 58</i></li> </ul>
Locks do not open.	<ul style="list-style-type: none"> <li>User key is not authorised.</li> <li>Closing mechanism defective.</li> <li>Plug connections loose.</li> <li>Locking mechanism sticks / stiff.</li> </ul>	<ul style="list-style-type: none"> <li>Program the user key. ⇒ <i>6. Programming user keys, page 58</i></li> <li>Check closing mechanism.</li> <li>Check plug connections.</li> <li>Lock is under tension. Check loading of furniture item.</li> <li>Adjust locking mechanism. Note adjustments and tolerances!</li> <li>⇒ <i>4.1 Installation references, page 54</i></li> <li>⇒ EFL 3 / EFL 3C </li> </ul>
Fault when locking	Possible cause	Remedy
Locks do not lock.	<ul style="list-style-type: none"> <li>Lowering of locking mechanism after loading the furniture item.</li> <li>Plug connections loose.</li> </ul>	<ul style="list-style-type: none"> <li>Adjust locking mechanism. Note adjustments and tolerances!</li> <li>⇒ <i>4.1 Installation references, page 54</i></li> <li>⇒ EFL 3 / EFL 3C </li> <li>Check plug connections.</li> </ul>

In the event of a power failure, the locks retain their locking status which was present at this point in time. The locking authorisations for the user keys are retained and do not have to be reset.

If the faults cannot be remedied, contact your responsible DIALOCK technician or [www.hafele.com](http://www.hafele.com).

73222.024

## 12. Reset

A reset is required for maintenance purposes or for remedying faults.

There are two reset options:

- Simple reset,
- complete reset.

HDE 04.10.2021

## 12.1 Simple reset

A simple reset is required in the following cases:

- Loss of programming and erasing key (master keys).

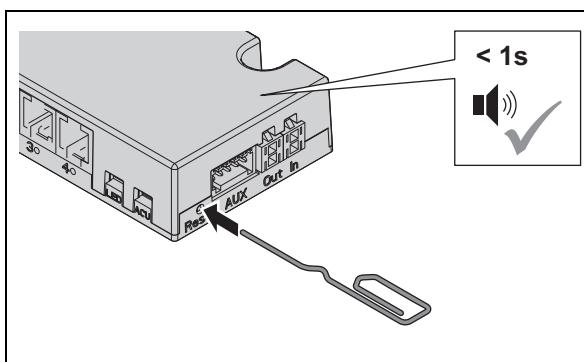
After a simple reset, the allocated master keys are cleared and reallocation is required (LED continuously flashing in green).

Continued use of the terminal is not possible until a restart with new master keys (⇒ 5. Commissioning, page 55). The locking authorisations for the user keys are retained after a simple reset.

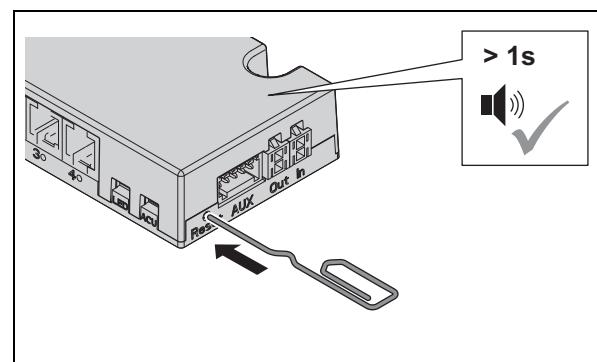
Prerequisites:



A tool to actuate the reset button, such as a thin pen/pencil or opened out paper clip



1. Press the reset button.  
► A brief acoustic signal is heard.



2. Press and hold the reset button until a long acoustic signal is heard.  
► The lock on parametrisation with the MDU 110 data transfer unit is disabled.  
► The LED flashes continuously in green.
3. Re-teaching master keys  
(⇒ 5. Commissioning, page 55)

## 12.2 Complete reset

A complete reset resets the furniture terminal to the factory settings. All data is cleared. The system then has to be reconfigured (⇒ 5. *Commissioning, page 55*).

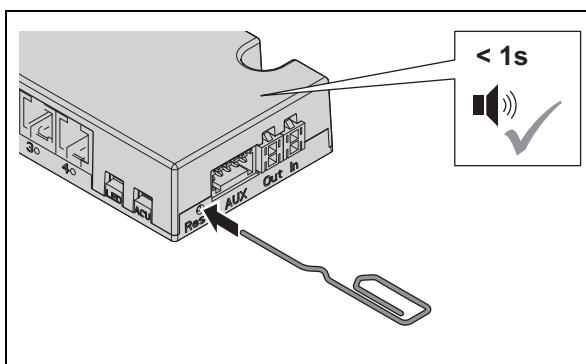
A complete reset is required in the following cases:

- Complete erasing of all data (e.g. in the event of return to stocks / warehouse).
- Resetting of software operation to stand-alone operation (SA).

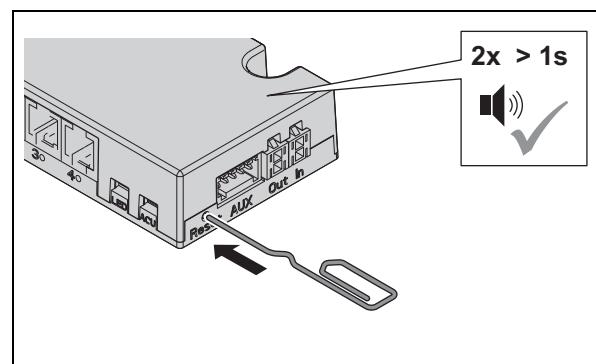
Prerequisites:



A tool to actuate the reset button, such as a thin pen/pencil or opened out paper clip



1. Press the reset button.  
► A brief acoustic signal is heard.



2. Press and hold the reset button until two long acoustic signals are heard.  
► The LED flashes rapidly in green and red.  
► All data and access rights are cleared.  
► The FT 200 switches to start-up mode  
(⇒ 5. *Commissioning, page 55*)

73222.024

## 13. Cleaning and maintenance

### 13.1 Cleaning

- Only clean visible antenna surfaces as required.
- Clean the surface of the antenna with a dry, soft cotton cloth or a damp cloth with a little washing-up liquid or neutral cleaner.
- Do not clean any other system components.

HDE 04.10.2021

## 13.2 Maintenance

The product is maintenance-free.



### NOTE

Damage to product due to incorrect maintenance

- Do not carry out repairs.
- Do not use lubricants.
- Contact the manufacturer in the event of damage / malfunctions.
- If parts have to be replaced, always use original replacement parts from HÄFELE.

## 14. Disassembly



### WARNING

**Risk of life-threatening electric shock during disassembly work when the power plug is plugged in**

The system must be currentless during disassembly.

- Disconnect the system from the power supply for disassembly. Pull the power plug.

## 15. Disposal

73222024



Do not dispose of the appliance in household waste.

Please note the country-specific regulations.

## 16. EU Declaration of conformity



Sphinx Electronics GmbH & Co KG hereby declares that the FT 200 / FT 200 CAP furniture terminal in connection with the EFL 3 / EFL 3C furniture lock, FAN 200 antenna, the PS 4 power supply unit and MLA 8 multi-lock adapter are compliant with directives 2014/53/EU and 2011/65/EU.

The complete text of the EU declaration of conformity can be found under the product at the following web site: [www.hafele.com](http://www.hafele.com).

## 17. UKCA Declaration of conformity



Sphinx Electronics GmbH & Co KG hereby declares that the FT 200 / FT 200 CAP furniture terminal in connection with the EFL 3 / EFL 3C furniture lock, FAN 200 antenna, the PS 4 power supply unit and MLA 8 multi-lock adapter are compliant with directives Radio Equipment Regulations 2017 and Restriction of hazardous substances (RoHS) 2012.

The complete text of the declaration of conformity can be found under the product at the following web site: [www.hafele.com](http://www.hafele.com).

## 18. Approval according to Part 15 of the FCC rules

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

**H** This device complies with Part 15 of the FCC Rules [and with Industry Canada licence-exempt RSS standard(s)]. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

**H** Changes or modifications made to this equipment not expressly approved by Häfele may void the FCC authorization to operate this equipment.

**H** Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.