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INSYS locks

CombiLock 200 simplex
CombiLock 200 pro
CombiLock 200 pro RFID

Handbuch   Manual

Table of Contents

1 General Information on This Manual

1.1 Content and Usage

This manual contains information on how to open and close the locks and on how to assemble the high security lock system CombiLock 200 simplex / - pro / - pro RFID. Its purpose is to assist you in opening and closing safes and in assembling the high security lock system. The procedures described in this manual are the ones required for system CombiLock 200 simplex / - pro and pro RFID, VdS class B.

1.2 Text Marks and Formatting

1.2.1 Safety Warnings

	Danger
⚠	**Imminent mortal danger / Danger of severe injuries / health hazard.** **Consequences which might arise from not being aware of the danger.** Instructions on how to avoid the danger or remove its cause.
	Warning
⚠	**Possibility of mortal danger / Danger of severe injuries / health hazard.** **Consequences which might arise from not being aware of the danger.** Instructions on how to avoid the danger or remove its cause.
	Caution
⚠	**Danger of getting injured.** **Consequences which might arise from not being aware of the danger.** Instructions on how to avoid the danger or remove its cause.
	Caution
	Danger of property damage. **Consequences which might arise from not being aware of the danger.** Instructions on how to avoid the danger or remove its cause.

1.2.2 Icons

☼	Visual signal
♪	Acoustic signal
☞	Information on state or on background
✋	Check required
PID	Personal identification (with versions CombiLock 200 pro / RFID: numbers 1 to 9 for users, 0 for the master)

1.3 Intended Use

	Warning
⚠	**Danger of locking persons in.** **Mortal danger due to possible lack of air / food.** Before closing a lock, make sure that nobody is inside the container / room you are about to lock.

Use the high-security electronic lock system for opening and closing safes / containers for valuables and for the administration of the opening and closing procedures only.

1.4 Danger Due to Electric Energy

Jobs which require the removal of the housing of units of the system, like described in the Assembly Instructions, may be performed by skilled electricians only (definition see p. 47), which have been trained and entitled to perform these jobs by INSYS MICROELECTRONICS or approved partner companies.

	Caution
	Danger of short circuit of electric components. **Danger of damage to the system.** Follow the instructions on cleaning the system. Perform jobs on hardware components like described in the Assembly Instructions. Unauthorised retrofitting and modifications are forbidden.

1.5 Responsibility of the Operating Company

In case the high security lock system is used in a business environment, the operating company has to take care to follow the legal requirements concerning occupational health and safety.

In addition to the safety warnings of this manual, also the laws and regulations concerning safety, the prevention of accidents and the protection of the environment have to be observed, which apply in the place where the system is operated.

1.6 Personnel Requirements

1.6.1 Qualifications

Persons operating the electronic lock system CombiLock 200 simplex / pro / pro RFID have to be capable of reading and understanding this guide in order to be able to get acquainted with the assembly and operation procedures described und to be able to assemble and operate the system safely and securely.

The various tasks described in this manual demand different kinds of qualification of the persons, which are to perform these tasks.

	Warning

Danger due to insufficient skill / training of persons assembling the system.

Persons, who are not qualified sufficiently, may not be able to assess the risks arising from handling elements under voltage.

Have no other people but trained electricians perform jobs, which require the removal of the housing or the insulation of units of the system.

Make sure other people are kept off the work area while such jobs are being carried out.

Skilled electricians only, which have been instructed about the system by INSYS MICROELECTRONICS or a partner company and have been authorised by one of these companies, may perform jobs, which require the removal of the housing of units of the system or the modification of the hardware configuration.

1.6.1 Definition of 'Skilled Electrician'

Skilled electricians can perform jobs on electric systems. They are able to be aware of possible dangers autonomously and they can avoid them due to professional training, knowledge and experience and due to knowledge of the applicable standards and rules.

They have been trained especially for the working environment in which they operate and they know the relevant standards and rules.

1.7 Protection of the Environment

The operating company has to see to it that all legally relevant aspects concerning environmental protection, which are valid at the place where the system is operated, are followed throughout the life cycle of the product.

Also see section "Disposal" on page 82.

1.8 Notes on Lock Protection and Codes

<div style="background:yellow">**Caution**</div>

The system is not protected with ex works versions of system manager – and master code.
Danger of unauthorised opening.
Due to security reasons, change the ex works versions of codes as soon as possible.

<div style="background:yellow">**Caution**</div>

Codes consisting of numbers that correspond to personal data like birthday dates and simple codes might be guessed at.
Danger of unauthorised opening.
Avoid using numbers that might be guessed at by people with access to your personal data and avoid simple codes (123456, e.g.).
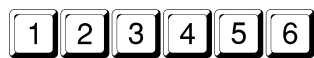
<div style="background:yellow">**Caution**</div>

If you register code at a lock but cannot repeat entering it, the lock cannot be opened.
Danger of unsuccessful attempts at opening.
Test and repeat entering new codes with the storage unit open and store the codes in a secure place.

1 2 3 4 5 6 is the opening code ex works. Please change it immediately.

<div style="background:yellow">**Caution**</div>

When the door of the safe is open, security sensitive parts of the high security lock system are unprotected.
Danger of attempts at sabotage.
Unauthorised persons are not to be granted access to security sensitive parts of a high security lock system, especially not at times when the door of the safe in that the lock is integrated, stands open.

2 General Operating Instructions CombiLock

2.1 Opening and Closing

2.1.1 Opening the Electronic Lock with Code

0

With versions CombiLock 200 pro / RFID only:
PID 1 to 9 for one of the users 1-9,
PID 0 for the master.

1 2 3 4 5 6

is the opening code ex works. After failure of power supply, battery change, for instance, and after 4 or more times of incorrect code input, as well as after a change of keypads, **enter PID and CODE twice**.

Open the electronic lock within 10 seconds after code input by rotating the keypad clockwise. If it is not opened within that time span, the lock will lock automatically.

☞ Entering incorrect code four times in sequence activates a lockout / blocked time lasting 10 seconds. Also see >Visual und Acoustic Signals<.

Electronic lock   ⟶   **Electronic lock**
CLOSED   **OPEN**

2.1.2 Closing the Electronic Lock

The electronic lock engages automatically 10 seconds after opening.
In order to close it properly, rotate the keypad into its „home position".

Electronic lock   ⟶   **Electronic lock**
CLOSED   **OPEN**

✋ After securing the safe, always examine whether the lock is locked properly: Try repeatedly to rotate the keypad. The lock is locked properly in case it is not possible to turn the keypad.

2.1.3 Cancelling during Input

C

3 Operating Instructions CombiLock simplex

3.1 Programming / Changing the Code 2 CombiLock simplex 200

(with the electronic lock open only):

| * | 1 | * |

| 1 | 2 | 3 | 4 | 5 | 6 | | * | Code 1
(when changing it, input of Code 1 or Code 2)

| 3 | 4 | 5 | 6 | 7 | 8 | | * | new Code 2 (sample code)

| 3 | 4 | 5 | 6 | 7 | 8 | | * | repeat new Code 2

3.2 Deleting Code 2

(with the electronic lock open only):

| * | 1 | * |

| 1 | 2 | 3 | 4 | 5 | 6 | | * | * | Code 1

3.3 Additional Functions CombiLock 200 simplex

☞ In order to **Open with Timed Unlocking Delay**, enter the Code a second time after the end of the Release period. In case the second code input is not entered within the set duration of the release period, opening with timed unlocking delay has to be restarted from the beginning.

Timed delay	**1 - 3** Minutes> Release	**1** Minute
Timed delay	**4 - 10** Minutes> Release	**2** Minutes
Timed delay	**11 - 99** Minutes> Release	**3** Minutes

Sequence of functions with timed delay set to 6 minutes

Enter Code 1 or 2	Enter Code 1 or 2 again during the release period	Open lock within 10 sec after entering the Code for the 2nd time
↓	↓	↓
Timed delay set to last 6 minutes	Release period lasts 2 minutes with timed delay lasting 4-10 minutes	10 sec time span for opening, cannot be set

3.3.1 Switching On Timed Delay

| * | 3 | * |

| 1 | 2 | 3 | 4 | 5 | 6 | Code 1 (sample code illustrated)

| * | 0 | 1 | * | Duration   (from | * | 0 | 1 | * | for 1 minute)

(to | * | 9 | 9 | * | for 99 minutes)

3.3.2 Switching Off Timed Delay

| * | 3 | * |

| 1 | 2 | 3 | 4 | 5 | 6 | Code 1 (sample code)

| * | 0 | 0 | * |

3.3.3 Opening with Timed Delay

| 3 | 4 | 5 | 6 | 7 | 8 | Code 1 or 2 (sample code illustrated)

Wait for

15 x 🎵 and 💡 green   Unlocking delay ends, release period starts

| 3 | 4 | 5 | 6 | 7 | 8 | Enter Code 1 or 2 for the second time

☞   If you enter incorrect Code during the Release Period or press | C | during entering, repeat Opening with Timed Delay starting at the beginning again.

4.   Operating Instructions CombiLock 200 pro

4.1   Changing the Master CODE

(start within 10 sec. after opening the lock):

| * | 0 | * |

| 1 | 2 | 3 | 4 | 5 | 6 | | * | ☼   Enter old Master CODE

| 6 | 5 | 4 | 3 | 2 | 1 | | * | Enter new Master CODE (sample code illustrated)

| 6 | 5 | 4 | 3 | 2 | 1 | | * | ☼ ♫   Enter new Master CODE

4.2   Programming / Changing a User CODE

(begin within 10 sec. after opening):
Max. 9 CODES can be programmed.

With the safe open, verify repeatedly whether the new code works properly.

| * | 1 | * |

| 1 | * | PID ⬚1 to ⬚9 for user 1 to user 9

| 6 | 5 | 4 | 3 | 2 | 1 | | * | ☼   Master CODE (sample code illustrated)
or, if changing user code, enter your old user CODE

| 3 | 4 | 5 | 6 | 7 | 8 | | * | Enter new user CODE (sample code illustrated)

| 3 | 4 | 5 | 6 | 7 | 8 | | * | ☼ ♫   Repeat new user CODE

4.3   Deleting User CODE

(start within 10 seconds after opening the lock):

☞ With the dual code function activated, not all user CODES can be deleted.
In that case, at least one user CODE is to remain valid.

| * | 1 | * |

| 1 | * | PID ⬚1 for user 1 up to PID ⬚9 for user 9

| 1 | 2 | 3 | 4 | 5 | 6 | | * | ☼   Master CODE (sample code illustrated)

| * | ☐   ☼ ♫ Delete

4.4   Activating the Dual Code Function

(start within 10 sec. after opening the lock):

☞ With dual code activated, the lock can only be opened by entering 2 PIDs and 2 CODES.

`*` `2` `*`

`6` `5` `4` `3` `2` `1`   `*` ♫   Enter Master CODE (exemplary code illustrated)

`1` `*`   ☐   ☀♫   Activate function

4.5   Deleting the Dual Code Function

(start within 10 sec. after opening the lock):

`*` `2` `*`

`6` `5` `4` `3` `2` `1`   `*` ♫   Enter Master CODE (sample code illustrated)

`0` `*`   ☐   ☀♫   Delete function

4.6   Opening with Dual Code

(4-eyes-principle)

`1`   PID `1` for user 1 up to PID `9` for user 9

`3` `4` `5` `6` `7` `8`   ☀   for the user with the above PIN (sample code)

☐   ☀   Green LED lights up

`2`   PID `2` or another PIN up to PIN `9` of another user

`8` `7` `6` `5` `4` `3`   ☀♫   CODE for the 2nd user (sample code illustrated)

4.7 Timed Delay and Release Period

Sequence of functions with timed delay (01-99 minutes) and release period (00 minutes)

Enter PIN and Code

Open lock within 10 sec

⬇   ⬇

Timed delay period Can be set to last max.99 minutes	10 sec time span for opening, cannot be set

Sequence of functions with timed delay (01-99 minutes) and release period (01-15 minutes)

Enter PIN and Code

Enter PIN and Code again within the release period

Open lock within 10 sec after entering PIN and Code for the 2nd time

⬇   ⬇   ⬇

Timed delay period Can be set to last max.99 minutes	Release period lasts 2 minutes with timed delay lasting 4-10 minutes	10 sec time span for opening, cannot be set

4.8 Setting Timed -, Alarm Delay and Release Period

Start within 10 sec. after opening the lock; parameters can also be set singularly.

⸢*⸣⸢3⸣⸢*⸣
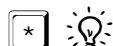
⸢6⸣⸢5⸣⸢4⸣⸢3⸣⸢2⸣⸢1⸣ ⸢*⸣ ☼ Master CODE (sample code illustrated)

⸢0⸣⸢1⸣⸢*⸣ ☼ ♫ Timed delay (from ⸢0⸣⸢1⸣⸢*⸣ for 1 minute to ⸢9⸣⸢9⸣⸢*⸣ for 99 minutes)

⸢0⸣⸢1⸣⸢*⸣ ☼ ♫ Alarm delay (from ⸢0⸣⸢1⸣⸢*⸣ to ⸢9⸣⸢9⸣⸢*⸣ for 1-99 minutes), to begin at the time a silent alarm is triggered

⸢0⸣⸢1⸣⸢*⸣ ☼ ♫ Release period (from ⸢0⸣⸢1⸣⸢*⸣ to ⸢1⸣⸢5⸣⸢*⸣ for 1- 15 minutes.) Enter ⸢0⸣⸢0⸣⸢*⸣ in order to set no release period

The release period begins after timed – and after alarm delay.

4.9   Deleting the Timed Delay, the Alarm Delay and the Release Period

(start within 10 sec. after opening the lock; parameters can also be deleted singularly)

| * | 3 | * |

| 6 | 5 | 4 | 3 | 2 | 1 | | * | ☀️   Master CODE (exemplary code illustrated)

| 0 | 0 | * | ☀️ ♫   Delete timed delay

| 0 | 0 | * | ☀️ ♫   Delete alarm delay

| 0 | 0 | * | ☀️ ♫   Delete release period

4.10   Opening with Timed Delay, Alarm Delay and Release Period

| 1 | PID | 1 | or any PIN up to PID | 9 | for one of the users 1-9

| 3 | 4 | 5 | 6 | 7 | 8 | ☀️   User CODE (sample code illustrated)

                      Green ☀️   flashes (5 sec. interval)

                          15 x ♫   Timed delay ends,
                                       start of release period.

| 1 | PID | 1 | or any PIN up to PID | 9 | for one of the users 1- 9

| 3 | 4 | 5 | 6 | 7 | 8 | ☀️ ♫   User CODE (sample code illustrated)

                                       Lock cleared for opening.

4.11   Disabling the Lock

(with electronic lock closed only):

☞ After disabling the lock, it will remain inaccessible until the Master enables it again (see below).

| * | 6 | * |

| 6 | 5 | 4 | 3 | 2 | 1 | | * | ☀️   Master CODE (sample code illustrated)

| 1 | * | ☀️ ♫   Lock disabled

4.12 Enabling the Lock

(with electronic lock closed only):

`*` `6` `*`

`6` `5` `4` `3` `2` `1` `*` ☼   Master CODE (sample code)

`0` `*`   ☼ ♪   Lock enabled

4.13 Setting the Time and Date

☞ Enter the date and time by entering numbers only.
Entries for weekdays: 1 = Monday / 2 = Tuesday / 3 = Wednesday
/ 4 = Thursday/ 5 = Friday / 6 = Saturday / 7 = Sunday

`*` `8` `*`

`6` `5` `4` `3` `2` `1` `*` ☼   Master CODE (sample code)

`2` `8` `0` `2` `1` `3` `*`   Date, 28.12.14, for example

`1` `5` `0` `0`   `*`   Time of day 15:00

`4` `*`   ☼ ♪   Day of week, 4 = Thursday, e.g.

4.14 Additional Functions CombiLock 200 pro

The following additional functions can be implemented with the help of unit CombiXT and the configuring set:

Function	Required accessories	
	Unit CombiXT	Parameterisation Set CombiComm
Event recorder / Audit trail (256 events, date, time)	–	●
Silent alarm / Duress alarm	●	–
External release	●	–
Open- / Close-signal	●	–
Mains power supply	●	–

● required

- not required

4.14.1   Optional Programming

for CombiLock 200 pro via PC software of optional parameterisation set CombiComm.

Timer programs
Dual code (four-eye principle)
IO functions (silent alarm, audit trail, for instance)
Timed delay / release period
Date / time

The unit CombiXT and the parameterisation set CombiComm can be purchased from INSYS MICROELECTRONICS. Address see imprint.

5   Operation CombiLock 200 pro RFID
5.1   General Information

CombiLock 200 pro RFID contains the functionality of version **CombiLock 200 pro** with contactless transponders as an additional medium of identification, which complements the commonly used PIN input.

Plastic cards and key fobs are available as transponders / security tokens.

RFID transponder card (example)

RFID transponder key fob / - tag (example)

A RFID transponder card or a RFID key fob can be made available for every user (user 1 to user 9) as an additional release medium in the system.

As soon as RFID transponders have been assigned to users, in order to open the system these users require a present an RFID tag besides entering their opening code.

No transponder can be assigned to the master user (master code).

5.2 Opening with Additional RFID Release
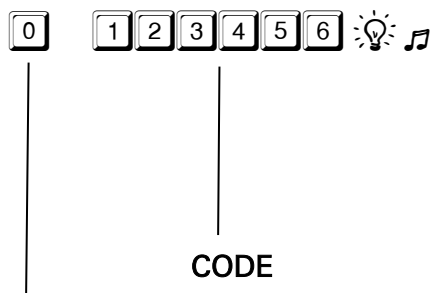
CODE

After the system has been separated from power supply, after a battery change, for example, after opening the keypad cover or after wrong code has been entered for at least 4 times

> enter **PIN and Code twice**.

PIN for Master = ⓪, for User 1 to 9 = ① to ⑨

After the opening code has been entered:

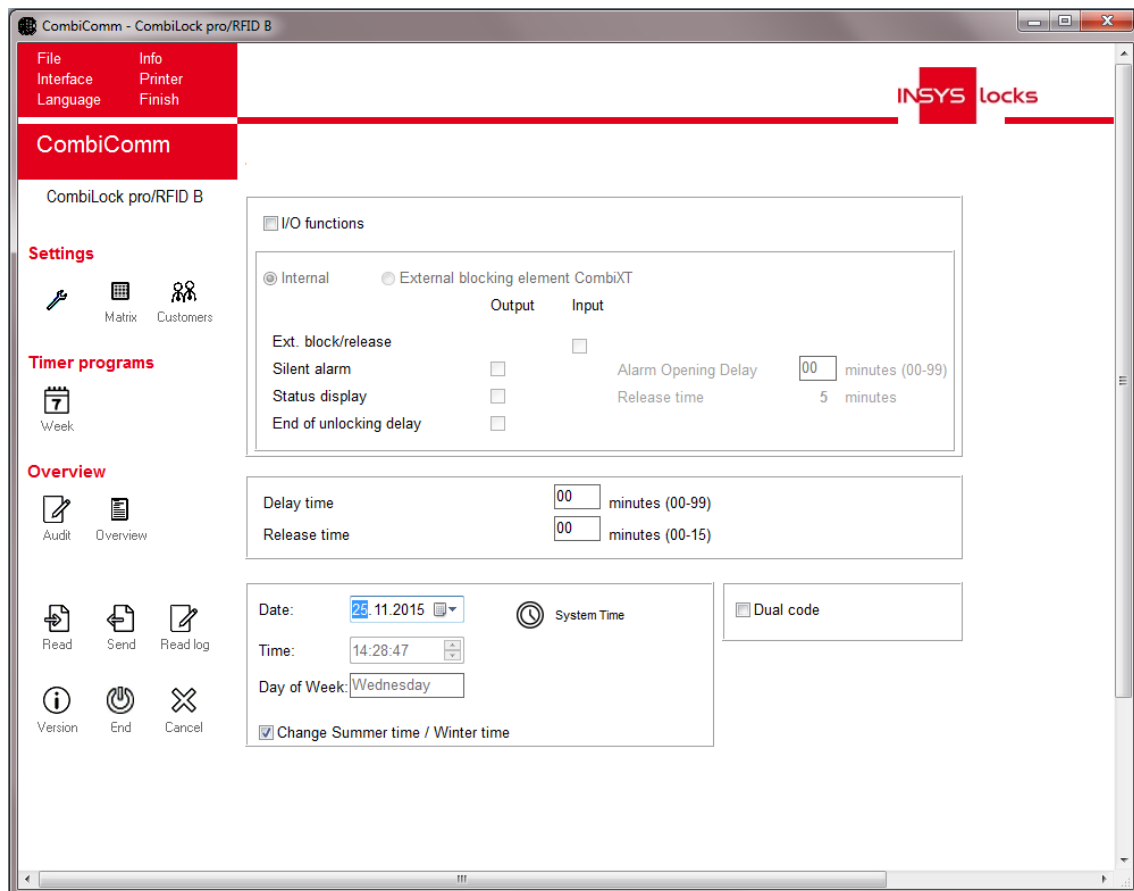The green LED is illuminated for about 10 seconds, during which the transponder signal can be received (RFID release).

Move the RFID transponder card or the RFID key fob close to digit 0. When the transponder has been identified, the green LED illumination ceases and the lock opens.

After code input, open the electronic lock within 10 seconds by turning the keypad. If the electronic lock is not opened within 10 seconds, it will close automatically.

Lock
CLOSED

→

Lock
OPEN

Optical and acoustic signal output during PIN- and CODE input	
☼ Red LED signal after the **PIN** has been entered.	Lock is closed: • A timer program is active. • Lock has been disabled by the master user. • Lock has been disabled by the connected burglar alarm system.
♫ 12 tone signal after the **CODE** has been entered.	Invalid CODE entered. Enter PIN and CODE again.
♫ 12 tone signal after the **RFID-transponder PIN** has been read.	• Wrong RFID transponder • RFID transponder cannot be read.
Green LED ☼ flashes every second.	Open the electronic lock within 10 seconds by rotating the keypad.

5.3   Programming the RFID Release

5.3.1   Assigning a RFID Transponder to a User

Start within 10 sec. after opening:
Max. 9 RFID tags (cards or key fobs) can be programmed.

⁎ 1 ⁎	
1 ⁎	① for PIN user 1 to ⑨ for PIN user 9
⁎ ⁎	
1 2 3 4 5 6 ⁎ ☼	CODE of the master (exemplary code)
1 ⁎ ☼	① Digit 1 for programming a transponder

The green LED lights up for about 10 seconds, during which the transponder signal can be read.

    ☼ ♫

Move the RFID transponder card or the RFID key fob close to digit 0. When the transponder has been identified and saved, an acknowledge signal sounds. The proper user assignment has been saved.

5.3.2   Deleting the RFID Assignment

Start within 10 sec. after opening:

|*|1|*|

|1|*| ① for PIN user 1 to ⑨ for PIN user 9

|*|*|

|1|2|3|4|5|6| |*| ☼   CODE of the master (exemplary code)

|0|*| ☼   ⓪ Digit 0 for deleting transponder assignment

☼ ♫

5.3.3   Testing the Assignment of a RFID Transponder

Start within 10 sec. after opening:

|*|1|*|

|1|*| ① for PIN user 1 to ⑨ for PIN user 9

|*|*|

|1|2|3|4|5|6| |*| ☼   CODE of the master (exemplary code)

|2|*| ☼   ② Digit 2 for testing transponder assignment

Move the RFID transponder card or the RFID key fob close to digit 0. When the transponder has been identified and saved, an acknowledge signal sounds.

☼ ♫

5.4   PC-Software CombiComm (Optional)

The settings of the RFID release (assignment and deletion) are logged in the lock and can be read and administrated via PC software CombiComm. Every additional RFID release of a user during the process of opening is logged as well.

Via CombiComm you can read and test the assignment of RFID transponders and users.

CombiLock 200 RFID is compatible with CombiComm Version 1.2.1.0 and higher.

6 Trouble Shooting and Maintenance

6.1 Optic and Acoustic Signals

Signal	Reason	Comment
♪ 2 x	Electronic lock **off**	In order to switch on, press [C] for **2 sec.**
green 1 x	Correct code entry.	
red and 12 x ♪	Incorrect code entry.	A lockout / blocked time of 10 sec. follows after the code has been entered incorrectly 4 times in succession. Each additional incorrect entry prolongs the lockout by 10 sec. Enter **PIN and valid Code two times** after the lockout ends.
green and 2 x ♪	Modification / Change OK.	The CODE change or the activation / deactivation of a supplementary function has been carried out properly.
red and 12 x ♪	Invalid attempt at change.	Code change or switching on or off an additional function carried out incorrectly. Repeat process.
green flashes every 5 sec.	Timed delay is running.	The electronic lock does not respond to any key entry while the timed delay is running.
15 x ♪ then green	Release time is running (Time delay has ended).	See section 3.8, Opening with Time Delay, Alarm Delay and Release Time.
red flashes every 5 sec.	Lockout / blocked time is running.	Lockout / blocked time cannot be discontinued / interrupted!
green and 2 x ♪	Lockout / blocked time has ended.	Signal indicating that the electronic lock can be opened with the correct Code.
red and green flash intermittently 10 x and 10 x ♪	Battery charge low – Warning.	2 x 1.5 volt MICRO batteries Type AAA Alkaline (not rechargeable) should be replaced shortly. ☞ Codes remain the same after battery change. Enter **PIN and code twice** after replacing the battery.
green and 1 x ♪ , then red and 1 x ♪	Keypad has been tampered with or changed, battery compartment has been opened.	In order to open the electronic lock, enter PIN und CODE once again.

6.2   Special Signals CombiLock 200 RFID

Optical and acoustic signal output during PIN- and CODE input	
🔅 Red LED signal after the **PIN** has been entered.	Lock is closed: • A timer program is active. • Lock has been disabled by the master user. • Lock has been disabled by the connected burglar alarm system.
♬ 12 tone signal after the **CODE** has been entered.	Invalid CODE entered. Enter PIN and CODE again.
♬ 12 tone signal after the **RFID-transponder PIN** has been read.	• Wrong RFID transponder • RFID transponder cannot be read.
Green LED 🔅 flashes every second.	Open the electronic lock within 10 seconds by rotating the keypad.

We shall not accept any liability for functional disruptions caused by incorrect operation or the use of force or improper treatment or for damage to materials or property that is, for example, attributable to not locking the safe properly.

In case the safe does not open even though you have proceeded correctly according to the present instructions, please contact the manufacturer of the safe.

6.3   Maintenance

Within typical office environment, the lock system is maintenance-free. Do not use lubricants or any other substances on or in the electronic lock.

With battery operation, change batteries when battery signal is emitted. In order to change batteries, open the keypad.

Opening the Keypad

In order to open keypad CombiControl CL38, insert the opener (within scope of delivery) into the boring on top of the keypad (see figure) and employing well dosed power press it downwards and to the front of the housing simultaneously.

With a finger nail or with a plastic card you can pull the front flap forward easily afterwards and have it come open, connected only by the hinge at the bottom.

Closing the Keypad

Close the front flap until it clicks into place.
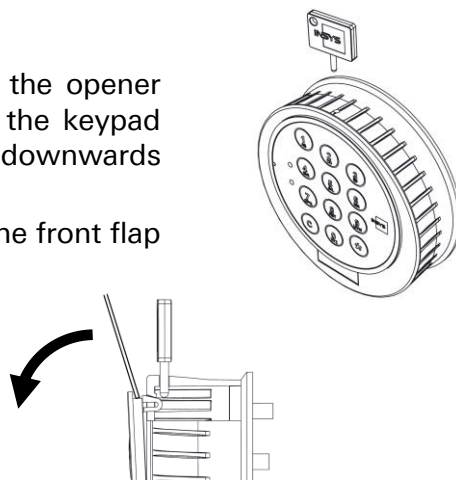
7 Assembly Instructions

for CombiLock 200 simplex, - pro und CombiLock 200 RFID

☞ Assemble and install the electronic lock and the keypad according to these assembly instructions.

Use the screws delivered with the system or screws exactly meeting the specifications on the following pages. If requested, use screw retention fluid of medium strength.

The assembly instructions are part of the VdS approval. Failure to follow these instructions will invalidate that approval.

	Caution
	Uneven surfaces may cause functional loss. Make sure that the lock is mounted to an even surface.

	Caution
	Applying too much force can cause damage. **Consequences which might arise from not being aware of the danger.** Do not use more torque than 1 Nm when fastening the attachment ring and do not use more torque than 10 Nm when fastening the lock.

Make sure the electronic lock is protected against tampering from the outside.

7.1 Assembly - Overview

There are 2 variants of the spindle, A and B.
Spindle A (below on the left hand side) consists of two half pipe pieces and cuffs.
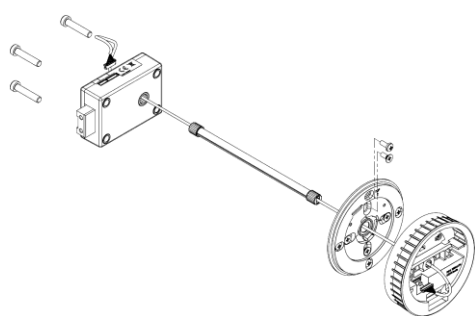Spindle variant B (below on the right) is a pipe.
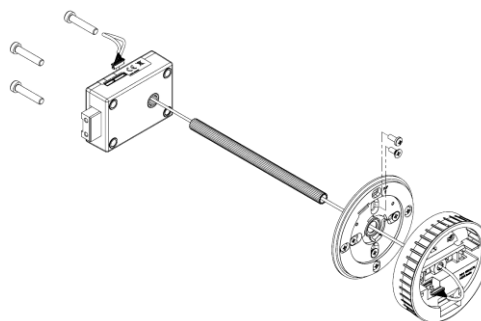

Querschnitte / Cross sections

Spindel A / Spindle A   Spindel B / Spindle B

System with spindle variant A   System with spindle variant B

The attachment ring is to be mounted at the door with 4 cylinder screws M4x10.
Fasten the lock using 3 x cylinder screws.

7.2   Assembly Sequence

7.2.1   Checking on Bores / Drilling the Bores

Check whether there are bores required for the spindle, the attachment ring and the lock already drilled into the safe door. Also see drawings and text of sections 7.2.5 and 7.2.7.

If required and if you have a system with a **spindle variant A**:

Drill a hole of min. 8.2 mm, max. 12 mm in diameter into the door of the safe. Observe drawings and text of section 7.2.5.

If you have a system with a **spindle variant B**:

Drill a hole of min. 10.5 – max 13 mm in diameter (in fig. with 11mm), into the safe door. Observe drawings and text of section 7.2.5.

Drill further bores, if required, at this stage, or, as recommended, when following the steps of sections 7.2.5 and 7.2.7.

With a system containing the connecting spindle variant A, skip point 7.2.4 below.

With a system containing the connecting spindle variant B, skip points 7.2.2 and 7.2.3 below.

7.2.2   Shortening and Deburring the Spindle Variant A

Shorten the spindle to a length at least as long as the safe door is deep (depth safe door = D [Depth] mm) + connecting length in lock and operating unit (in all 15.9 mm with variant A and black adapters), spindle length [adapters black] = D mm + 15.9 mm). The spindle variant A with grey adapters (available since 10/2015) is to be shortened to a length that is the sum of the depth of the safe door and 14.4 mm. Spindle length [adapters grey] = D mm + 14.4 mm.

In case the keypad CombiControl CL38, available since April 2015, is not part of your system, for systems with the previous version of CombiControl the spindle length = T mm + 19 mm.

Ex works, the spindle comes deburred. Shortening the spindle by sawing causes burrs. Shorten the spindle variant A to the length given above, if required, and manually remove burrs from the spindle, if required.
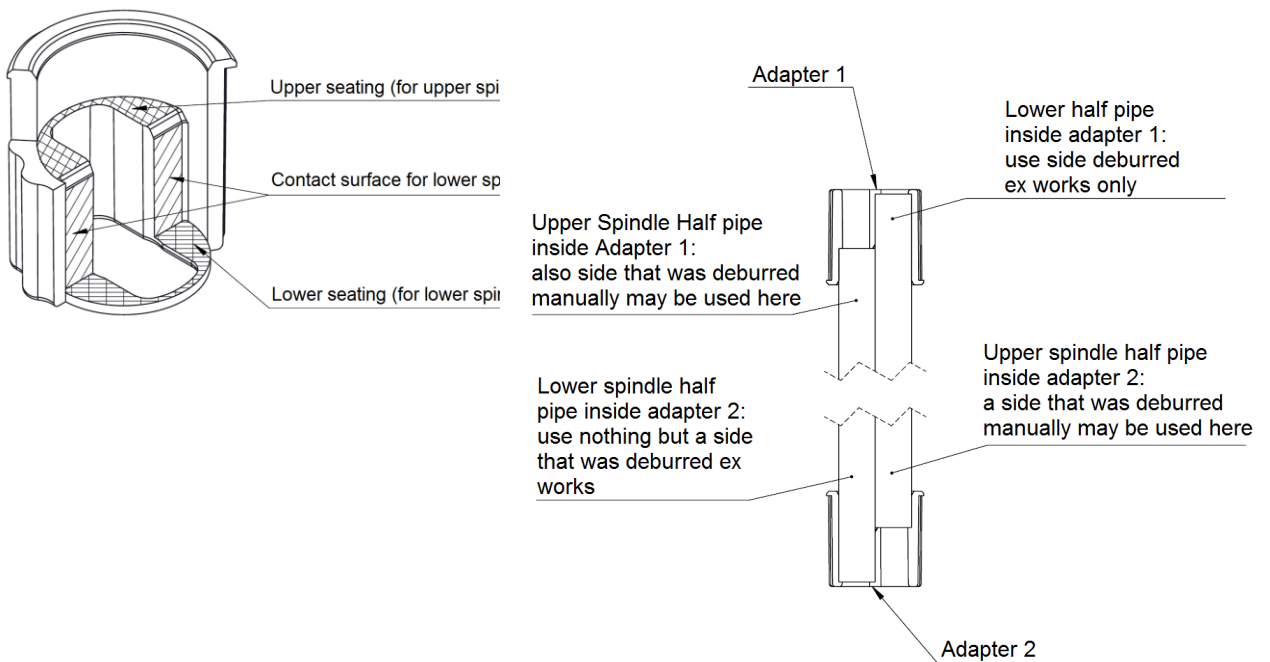
	Caution
	A spindle with burrs might lead to damages to contact areas within the adapter, so that the assembled spindle might have too much torsional backlash. Take care to remove all burrs from places where sawing took place before assembling the spindle.

D = Depth of Door
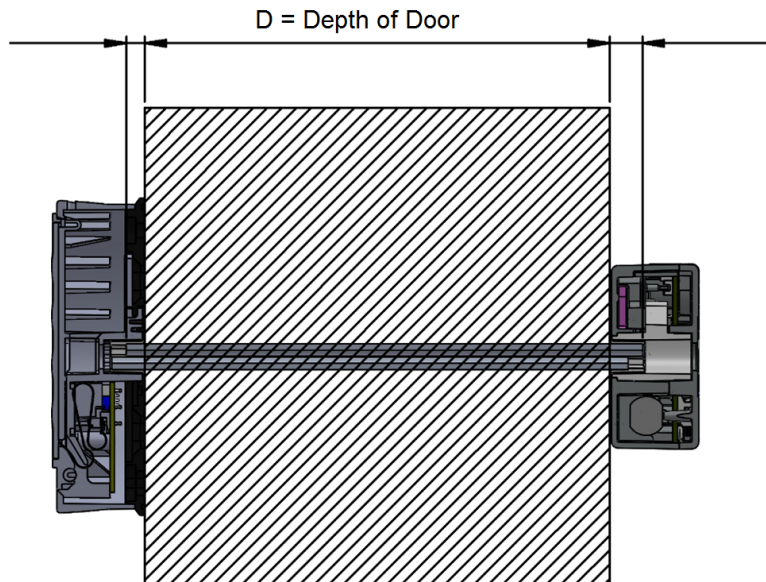
7.2.3 Preassembling and Mounting the Spindle Variant A

The following figures illustrate where upper and lower seating are within the adapter. The lower spindle half pipe (the side of it that was deburred ex works) should lie evenly upon the lower seating.


Upper seating (for upper spi

Contact surface for lower sp

Lower seating (for lower spi

Adapter 1

Lower half pipe inside adapter 1: use side deburred ex works only

Upper Spindle Half pipe inside Adapter 1: also side that was deburred manually may be used here

Upper spindle half pipe inside adapter 2: a side that was deburred manually may be used here

Lower spindle half pipe inside adapter 2: use nothing but a side that was deburred ex works
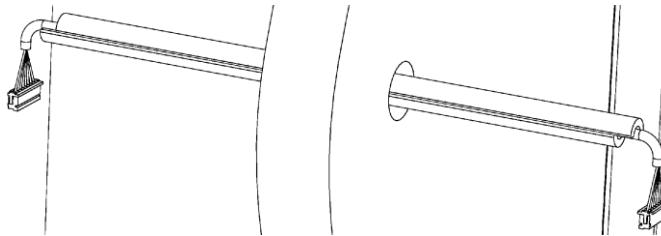
Adapter 2

Caution

Danger of half pipe being not supported properly.
Only use the side of the spindle that has been deburred ex works (not manually!) to be placed at the lower seating.
Use manually deburred spindle sides as upper spindle half pipes that are placed upon the upper seating only, never on the lower one.
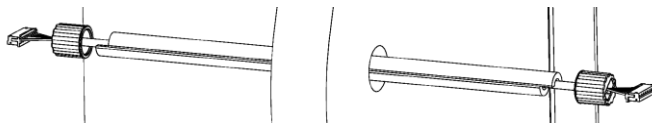
1. Put the cable from the retrofit kit into the spindle half pipes.
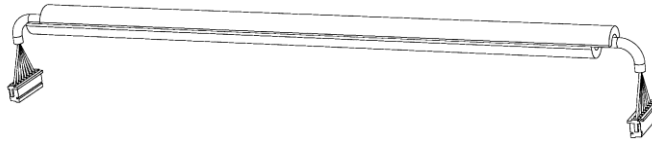
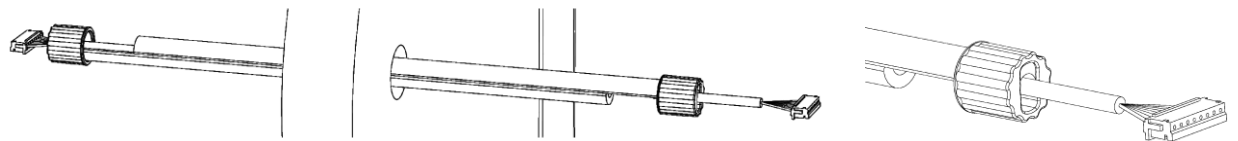2. Thread cable within spindle half pipes through the safe door.

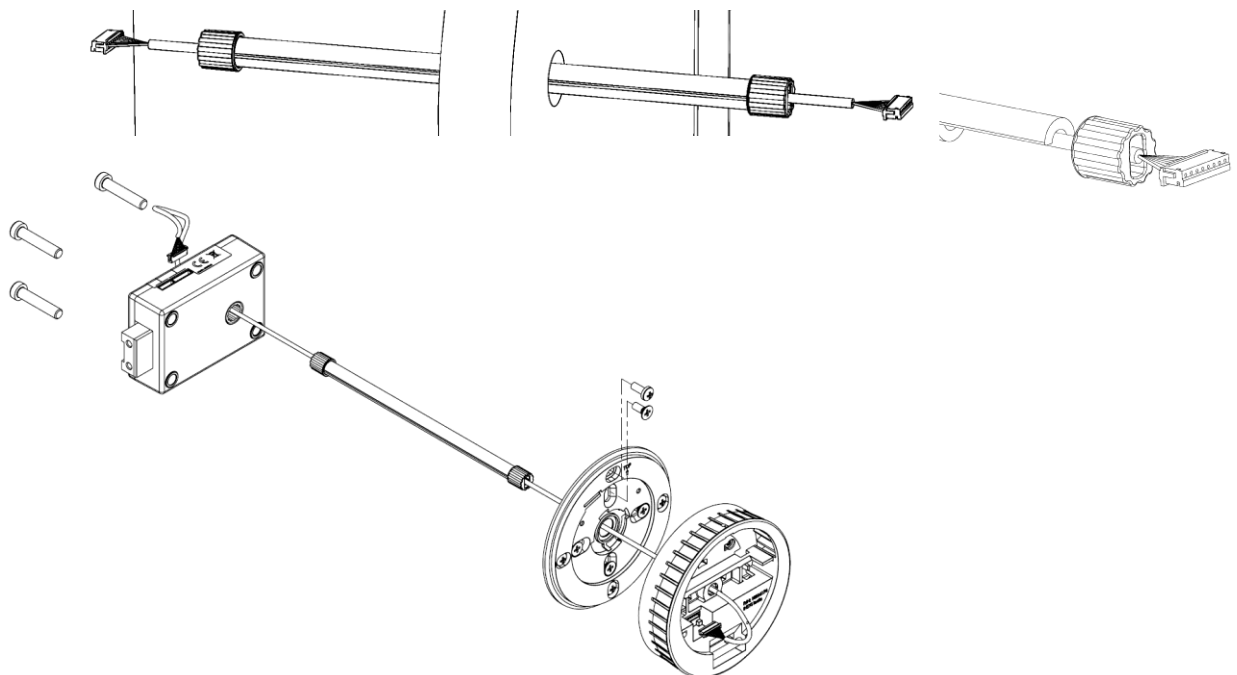3. Attach an adapter on both cable ends.

   Make sure the open adapter side faces the spindle half pipes.

4. Push the lower spindle half pipes (deburred ex works!) all the way into the adapters.

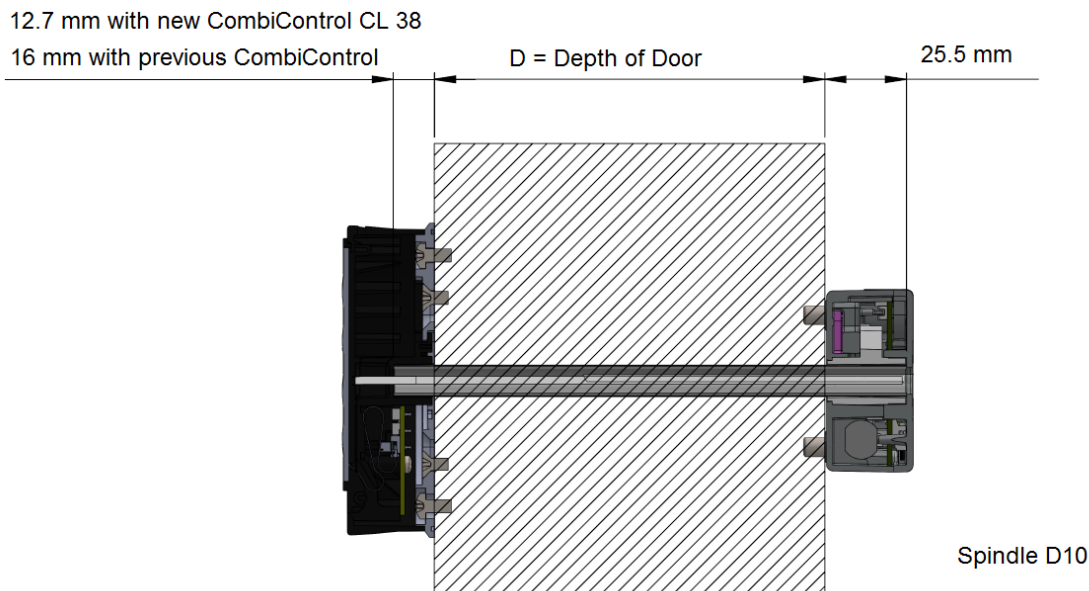5. Push the premounted spindle half pipes all the way into each other.

You have successfully assembled the spindle A.

7.2.4 Shorten Spindle B and mount it

**With spindle variant B shorter than specified here,
manipulation of the system might be possible.**
Make sure the spindle is not shorter than specified here.

12.7 mm with new CombiControl CL 38

16 mm with previous CombiControl

D = Depth of Door

25.5 mm

Spindle D10

Shorten the spindle:

- to depth of safe door (Depth safe door = D mm) + length attached to lock and to operating unit (with spindle variant B a total of approx. 38.2 mm).

Required spindle length with new **CombiControl CL38** = D mm + 38.2 mm.
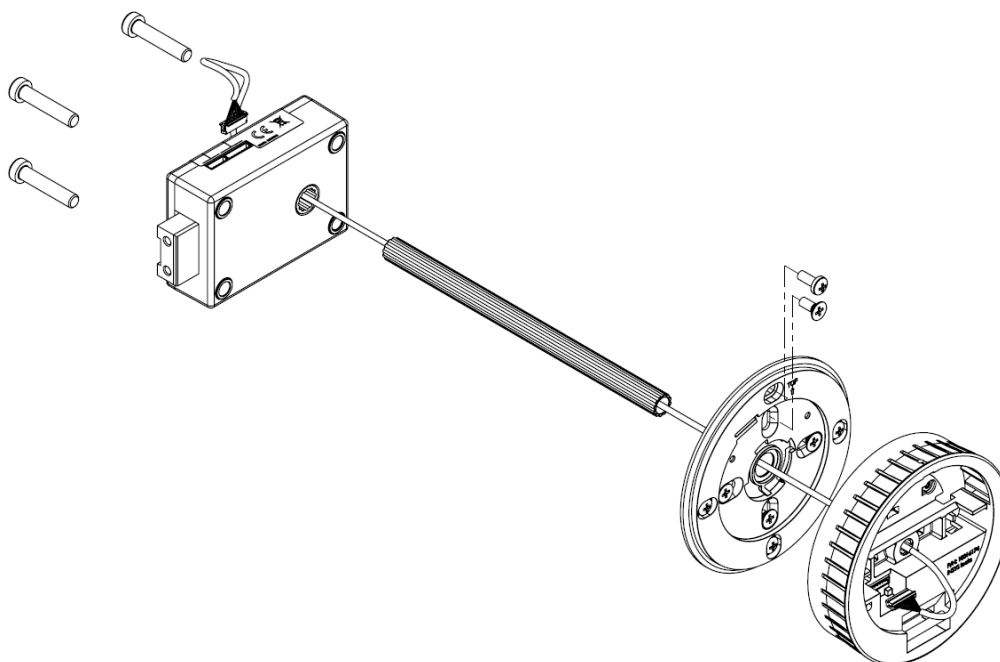
Shorten spindle variant B for system with **previous** CombiControl to spindle length = T mm + 41.5 mm (see above) and lead the wires through the spindle centre.
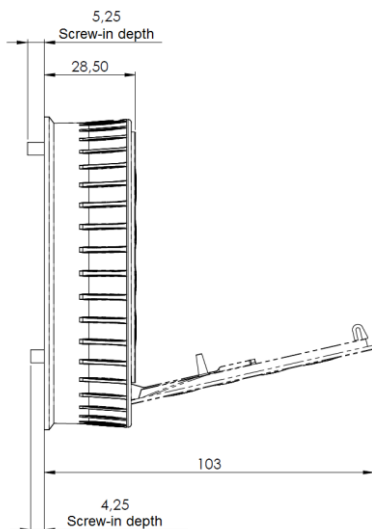
7.2.5   Mounting the Attachment Ring

Mount the attachment ring for keypad CombiControl according to the illustration.

In order to do this, if required,
drill 4 M4 threaded holes,
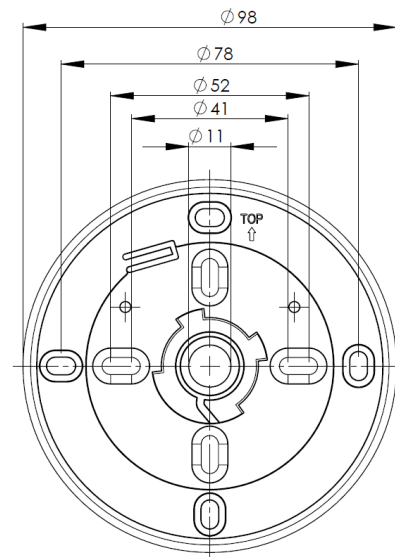and, if not carried out already
(see section 7.2.1 above):

drill 1 bore for spindle variant B,
Ø min. 10.5 – max. 13 mm
(11 mm in ill. to the right)
or
drill 1 bore for spindle variant A,
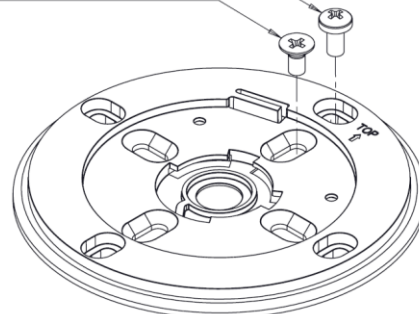Ø min. 8.2 mm, max. 12 mm
 into the safe door.

Attachment ring for keypad

After that, with four M4x8 machine screws fasten the attachment ring with a max. torque of 1 Nm ensuring that there is no damage in the area where the ring is secured.

Keypad centre axis is congruent with lock centre axis.

7.2.6   Mounting the Keypad

Click

Mount the keypad onto the attachment ring at an angle of about 20 ° and afterwards rotate the keypad clockwise to the right until it fits. See illustrations above. With the keypad aligned in vertical direction, it is not released, but blocked.

In order to release the keypad (to change keypads, for example), open it first (see section ‚Opening the Keypad' on page 63) and release it (see section ‚Releasing the Keypad' on page 70).

7.2.7   Releasing the Keypad

In order to release the keypad (to change keypads, for example), open it first (see section ‚Opening the Keypad' on page 63).

Release the keypad by gently pressing the protruding plastic piece that prevents the housing from turning freely round the basic ring with a small screwdriver to the top while turning the housing anti-clockwise.
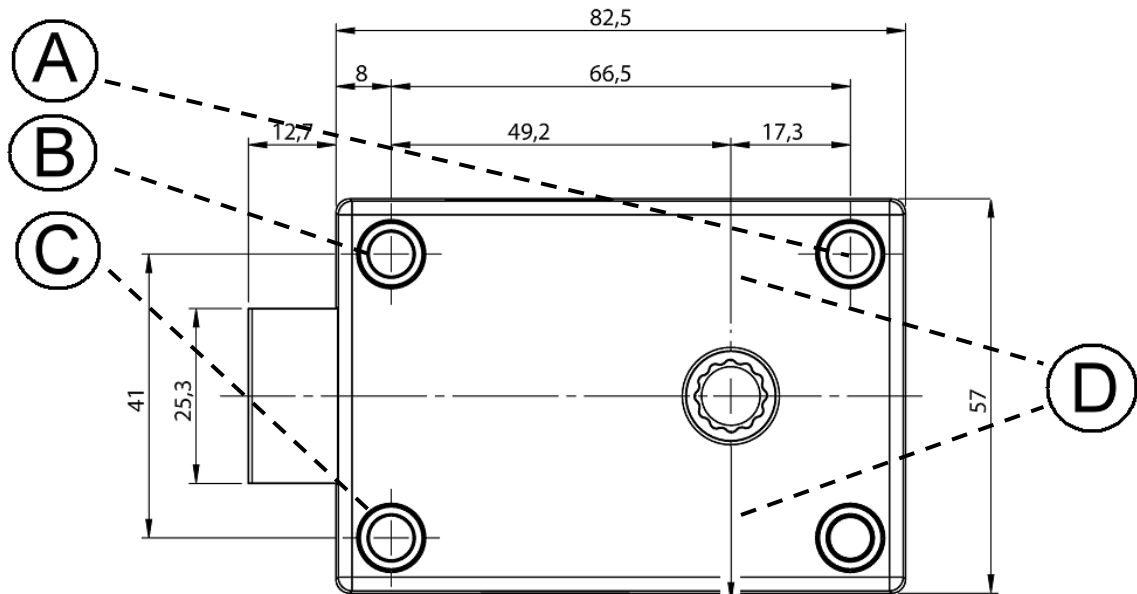
The keypad is released.
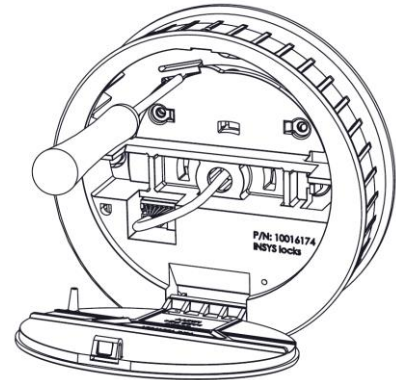
7.2.8   Drilling Holes for the Lock

Caution

Uneven surfaces may cause functional loss.
Make sure that the lock is mounted onto an even surface.

Drill 3 threaded holes M6 according to the drawing below in order to prepare the attachment of the electronic lock.

A)   Bore for the attachment of the lock
B)   Bore for the attachment of the lock
C)   Bore for the attachment of the lock
D)   Centre shaft of electronic lock

## 7.3 Mounting the Lock

Also see the assembly overview above.

Applying too much force can cause damage.
Consequences which might arise from not being aware
of the danger.
Do not use more torque than 1 Nm when fastening the
attachment ring and do not use more torque than 10 Nm
when fastening the lock.

---

1. Check whether there are suitable bores in the safe door. If required, drill bores, at this stage above all for the spindle variant A (Ø min. 8.2 mm, max. 12 mm).
    Drill further bores, if required, before carrying out steps 3 - 6 (see below).
2. Shorten spindle halves / shorten spindle. Assemble spindle variant A using 2 halve pipes. Thread the cable with its plugs through the spindle. Lead the spindle through the safe door bore. Attach 2 adapters and stick together.
3. Thread the keypad connector cable with its plug through the spindle variant B and the centre axis of the electronic lock.
4. Insert the connecting spindle into the keypad and adjust its position in relation to the electronic lock.
5. Slip-on the locked electronic lock onto the spindle.
6. Use three steel machine screws (M6 x 30 mm, DIN 6912, flat form or the corresponding inch threads) to affix the electronic lock so that permanent and secure support is provided.

In order to avoid malfunctions, tighten down the mounting screws with a torque of max. 10 Nm. If required, additionally use screw retention liquid of medium mechanical strength

Installation options: The electronic lock must always be located at right angles to the keypad (four installation positions, each offset 90° from the other).

INSYS Lock 200 simplex / pro / pro RFID   CombiControl CL38
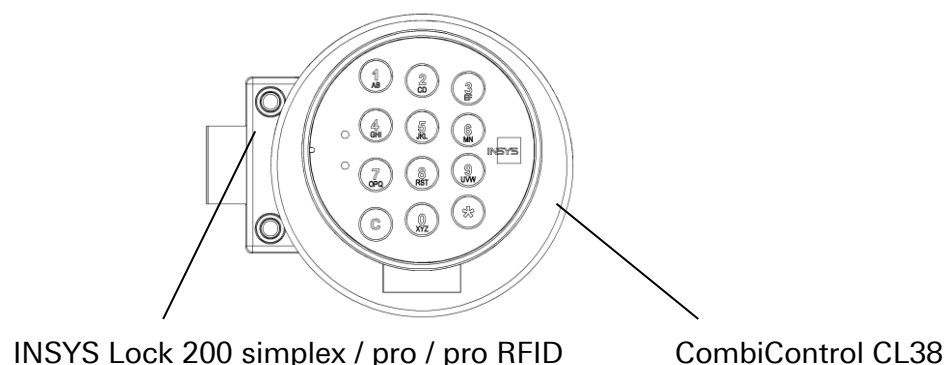
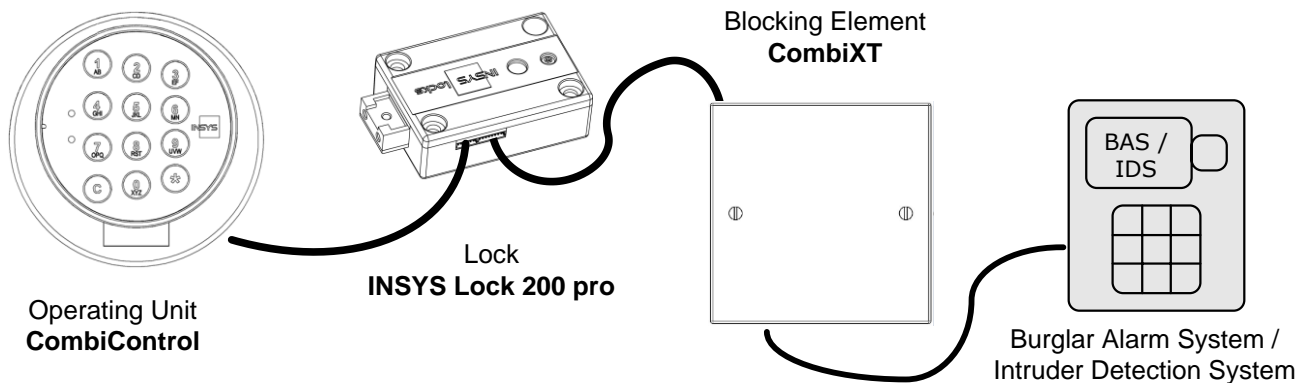Sample installation of electronic lock system CombiLock 200 simplex / pro / pro RFID

☞ The bolt is not to be subjected to tension or pressure after installation.

7.4 Installation with Blocking Device

The blocking element CombiXT is optional and not included in the scope of delivery.

## System Overview with Blocking Device CombiXT

Caution

With power supply connected improperly:
Danger of malfunction / material damage
Never use power pack / - adapter and batteries at the same time.

Installation Procedure for mounting CombiXT

☑ Mounting of the blocking device CombiXT
(see chapter 3)

☑ Connecting CombiXT to lock INSYS Lock 200 pro
(see chapter 4)

☑ Connecting CombiXT to the burglar alarm system (BAS / IDS)
(see chapter 5)

☑ Activating the blocking unit at the operating unit CombiControl
(see chapter 6)
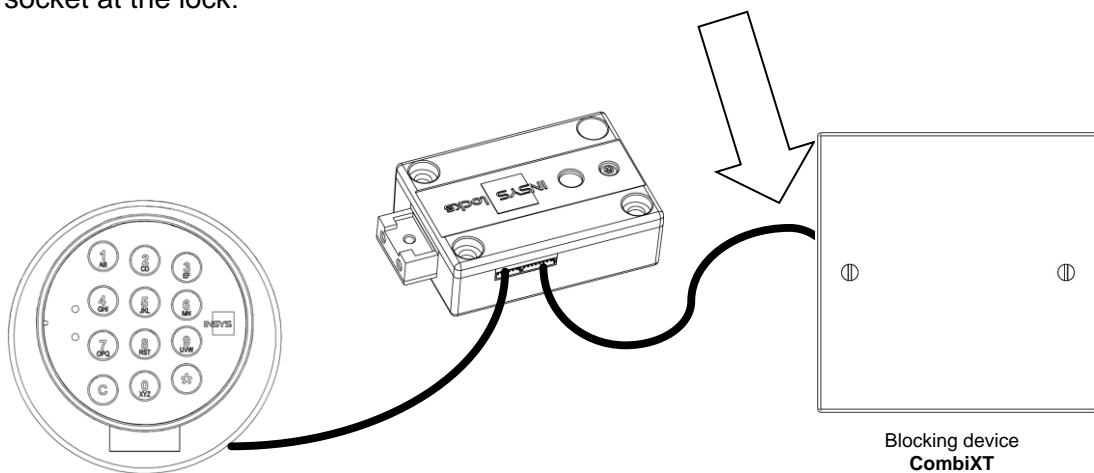
☑ Function test of the blocking unit
(see chapter 7)
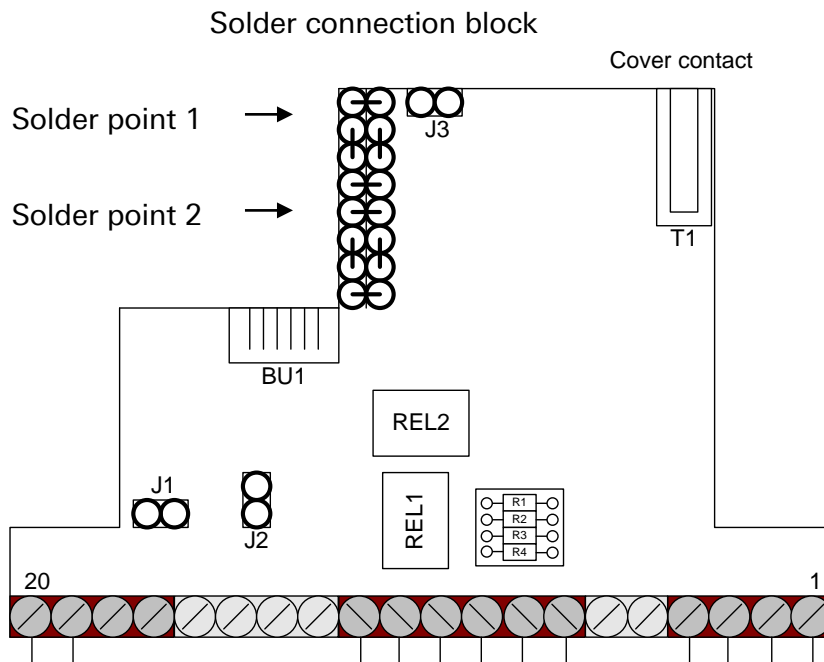
7.4.1 Mounting the Blocking Device CombiXT
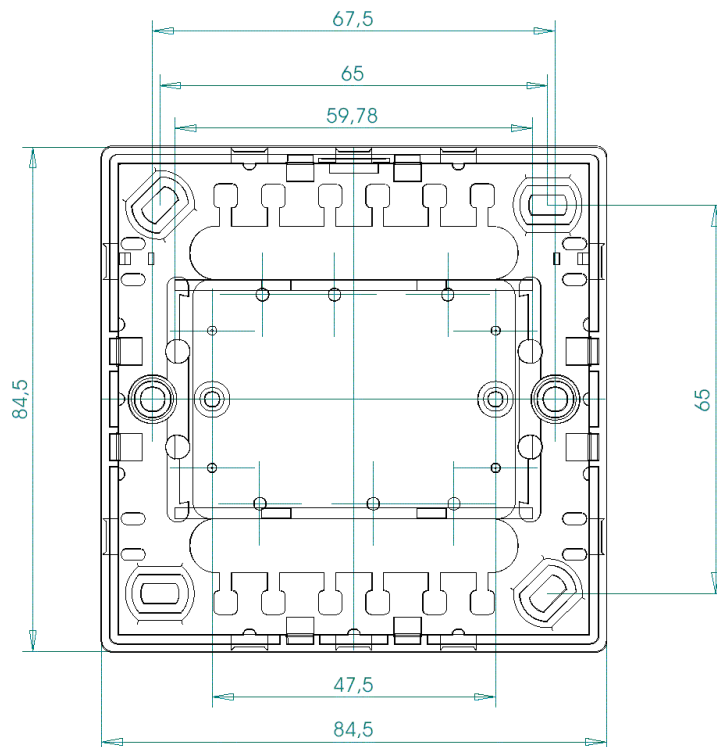
Mount the blocking device CombiXT in a secured area using the two screws (M3x10) that come with the device. Apply a torque of max. 1 Nm.

7.4.2 Connecting CombiXT to the Lock

Connect the CombiXT blocking device to the lock by attaching the adapter cable to the BU1 socket of CombiXT (see illustration in section 7.4.3 below) and to the terminal socket at the lock.

Blocking device
CombiXT

7.4.3   Connecting CombiXT to the Burglar Alarm System

Solder connection block

Cover contact

Solder point 1 →

Solder point 2 →

J3

T1

BU1

REL2

J1

J2

REL1

R1
R2
R3
R4

20

1

Terminal	Description
1	SABO1 (anti-tamper contact)
2	SABO2
3	GND
4	12VDC
5	---
6	---
7	Status relay : NO (lock open)
8	Status relay : NC (lock closed)
9	Status relay : C
10	Alarm relay : NO (duress - / silent alarm)
11	Alarm relay : NC
12	Alarm relay : C
13	---
14	---
15	---
16	---
17	---
18	---
19	Release contact
20	GND
BU1	Socket for adapter cable for lock connection

Release Contact

With the release contact closed, the lock is released / cleared. With the contact open, the lock is disabled / blocked and cannot be opened.

Contact closed: Lock is released / cleared
                          (terminals 19 and 20 electrically connected)
Contact open: Lock blocked / disabled (opening is impossible)
   (terminals 19 and 20 open)

> **Note:**
> With the BAS emitting live signals (12V) as release signals only, use jumper 1.

Alarm Contact:

If a user enters an alarm code when opening (=opening code, last digit+1,) at operating unit CombiControl, a duress - / silent alarm will be triggered at the output relay. The contact closes for about 1 sec.

Standby:
Terminals 10 and 11 closed

Silent alarm:
Triggered, lasting ca. 1 sec
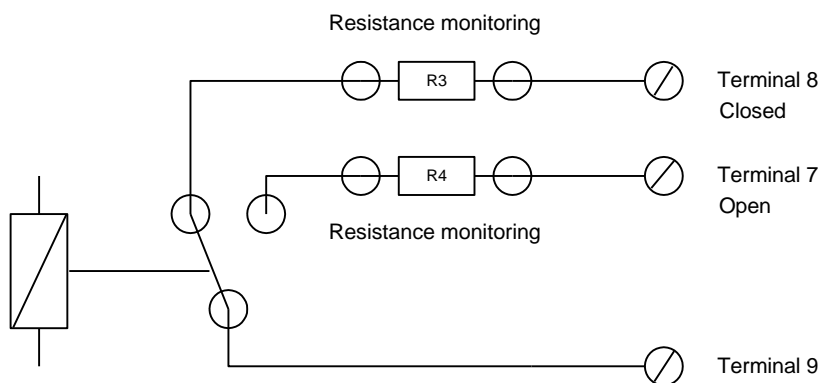Terminals 10 and 12 closed

Resistance monitoring

R1   Terminal 11 No Alarm

R2   Terminal 10 Alarm
Resistance monitoring
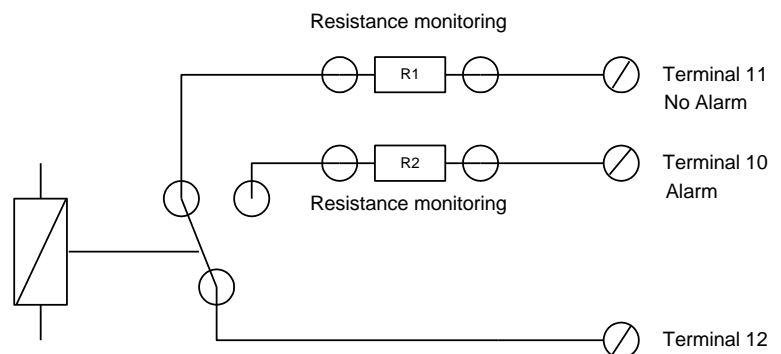
Terminal 12

Status Contact

The current state of the lock (open /closed) is indicated via relay 'status'.

Lock open
Terminals 9 and 7 closed

Lock closed
Terminals 9 and 8 closed

Resistance monitoring

R3   Terminal 8 Closed

R4   Terminal 7 Open
Resistance monitoring

Terminal 9

Anti-Tamper Circuit

CombiXT features an anti-tamper circuit implemented as a cover contact. You can add elements to the anti-tamper circuit. If no further anti-tamper elements are to be included, plug the jumper **J3** next to the cover contact. You may solder on a resistor for monitoring the anti-tamper circuit as a replacement for the jumper.

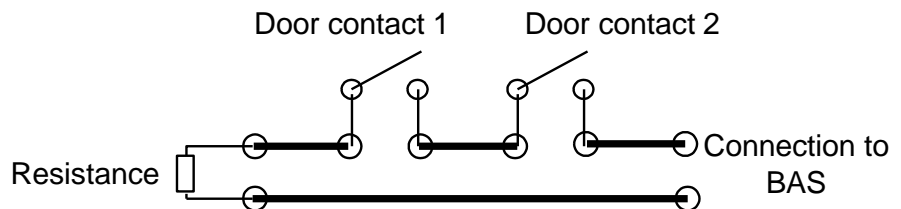In standby mode / idle state, the anti-tamper circuit is closed.
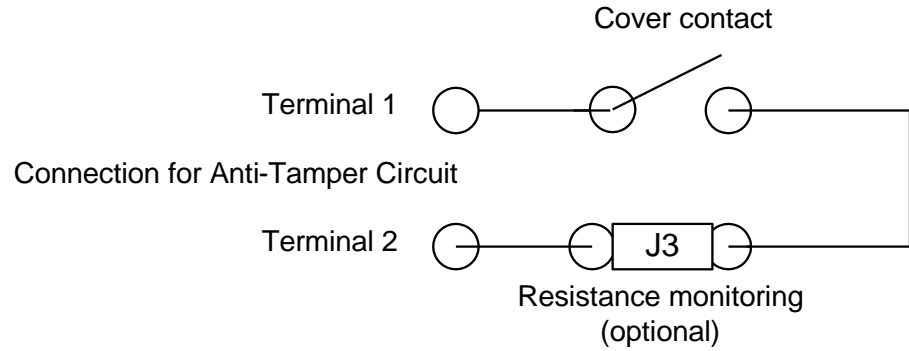
Solder Connection Block
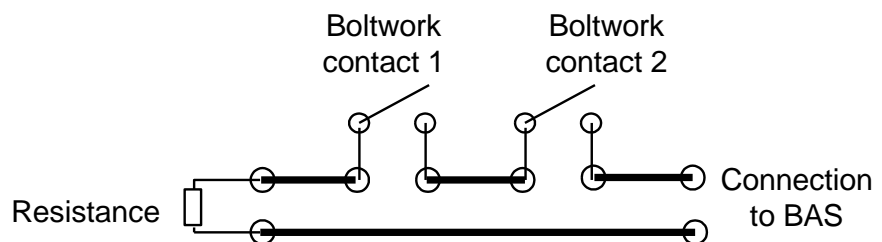
for boltwork- and door contacts

Optionally 2 boltwork – and 2 door contacts can be applied at the blocking device. You can apply resistors at the contacts in order to have the contacts monitored. Solder the wires on at the solder points.

Example of contact connection:

Solder point 1:

Solder point 2:

Note:

Via the solder connection block you can connect these contacts to the burglar alarm system. Apart from providing that option, the solder connection block does not have any functional relevance for the lock / system.

Supply voltage

	Caution
With power supply connected improperly: **Danger of malfunction / material damage** Never use power pack / - adapter and batteries at the same time.	

Use terminal screws 3 and 4 to connect the supply voltage.

Terminal 4 : 12VDC

Terminal 3 : GND

Attention: *Make sure to use stabilized 12V direct current!*
                   Make sure to maintain proper polarity!

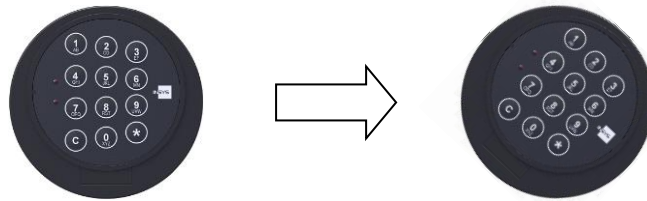## 7.4.4 Activating the Blocking Device via Operating Unit

☞ **Switch on the power supply via the burglar alarm system**

☞ **Open the lock**

| 0 | | Enter the user number. |

| 1 2 3 4 5 6 | 🔅 ♪ | Enter the code. |

The lock opens. Turn the keypad.

☞ **Activating the des CombiXT blocking device**

| * 9 * | | Enter the program number. |

| 1 2 3 4 5 6 * | 🔅 | Enter the master code. |

| 9 9 * | | Activate CombiXT. |

| 0 1 * | ♪ 🔅 | Set time of timed alarm delay (01-99 min). |

Release time automatically is set to 5 minutes.

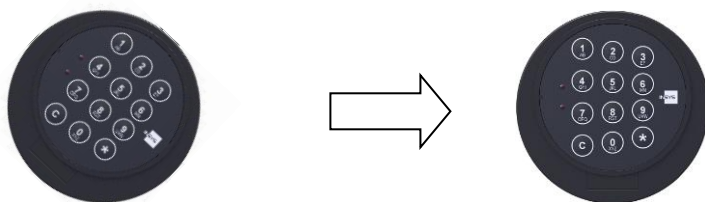## 7.4.5 Deactivating the des CombiXT blocking device

| * 9 * | | Enter the program number. |

| 1 2 3 4 5 6 * | 🔅 | Enter the master code. |

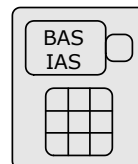| 0 0 * | ♪ 🔅 | Delete = 00 * |

Automatic deletion of the timed alarm delay.

7.4.6   Function Test of the Blocking Device

☞ **Close the lock**

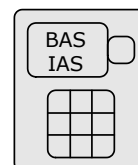☞ **Disable the lock via burglar alarm system**
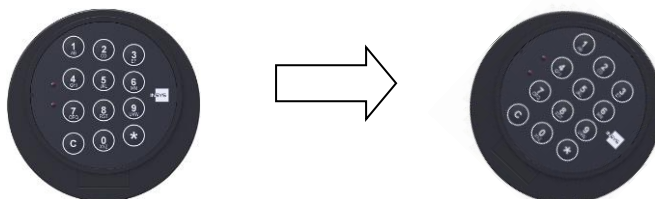

☞ **Enter code (attempt at opening)**

[0]   ☼ ♪ ♪ ♪   Blocking signal

☞ **Release the lock via the BAS**

☞ **Enter Code. Silent alarm is triggered.**

[0]   [1][2][3][4][5][7] ☼ ♪

☞ **With the lock open, check the status relay**

☞ **Close the lock. Operating unit switches to standby mode**
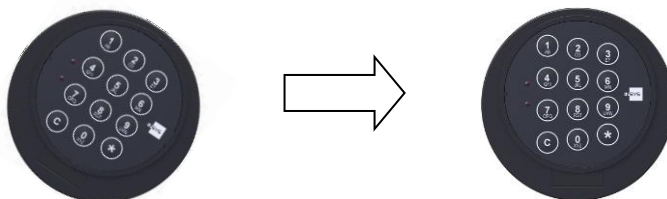
The electronic lock engages automatically 10 seconds after opening.
In order to close it properly, rotate the keypad into its „home position".

7.5 Survey Installation CombiLock 200 pro RFID

The blocking element PowerXT is optional and not included in the scope of the standard delivery.

Only skilled electricians, which have been trained and entitled by INSYS or approved partner companies, may perform assembly jobs.
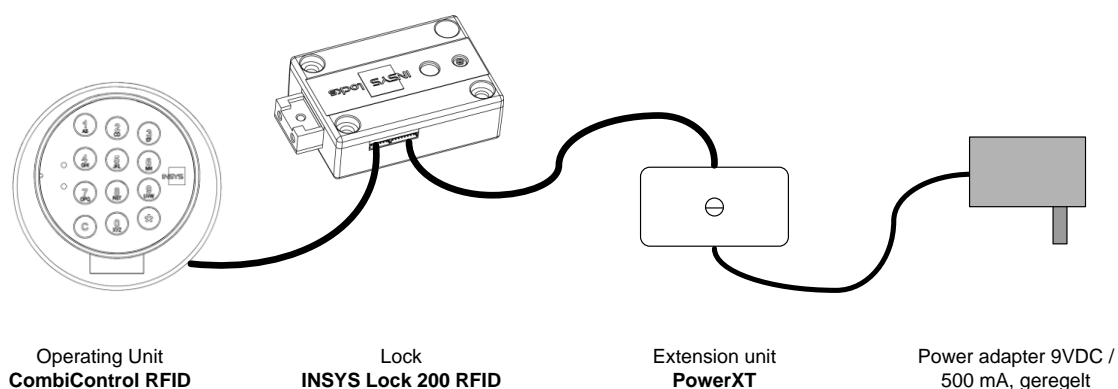
	Caution

Danger of short circuit of electric components.
Danger of damage to the system.
Perform jobs on hardware components like illustrated.
Unauthorised retrofitting and modifications are forbidden.

Operating Unit **CombiControl RFID**	Lock **INSYS Lock 200 RFID**	Extension unit **PowerXT**	Power adapter 9VDC / 500 mA, geregelt

	Caution

With power supply connected improperly:
Danger of malfunction / material damage
Never use power pack / - adapter and batteries at the same time.

6-pole Adapter Cable

Lock

+ 9VDC   GND -
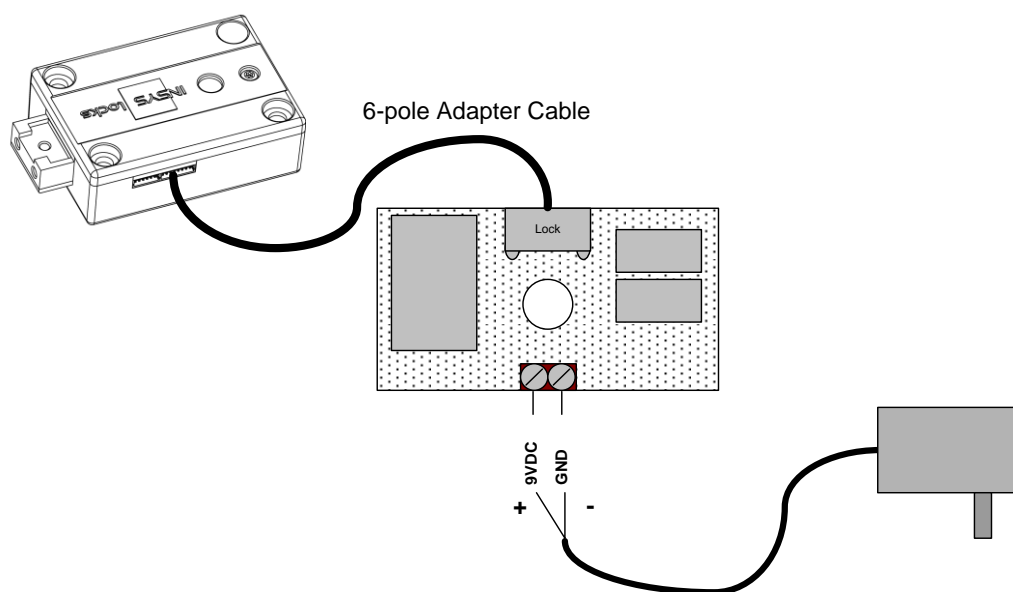
8 Technical Data

The components of the system do not interact with common, non-acrid materials.

Operating unit CombiControl CL38

Voltage supply   3 V
Current consumption   ca.1 µA
Battery comp., 2 x 1.5 V AA
No display
Dimensions   98 mm (diameter) x 28.5 mm (depth)
Weight   ca. 104 g
Environment 0 to 50˚C, 75 % relative air humidity
Environmental class II according to VdS
Protection type   IP 30

Lock INSYS Lock 200 simplex / pro / RFID

Voltage supply   3 V
Current consumption standby   ca.1 µA (simplex)
Current consumption standby   ca.5 µA (pro)
Current consumption when switching   ca. 100 mA
Dimensions   82.5 mm x 57 mm x 27.5 mm (L x B x H)
Weight   ca. 365 g
Environment 0 to 50˚C, 75 % relative air humidity
Environmental class II according to VdS
Protection type   IP 30

Blocking element CombiXT

Voltage supply: 12VDC
Standby operation: ca. 20 mA
Per relais :   ca. 35 mA
Dimensions: 100 x 60 x 25 mm (L x B x H)
Weight   ca. 85 g
Environment: 0-50°C, 75% r.F
Environmental class   II according to VdS
Protection type: IP 30

9 Disposal

Dispose of **plastic parts**, **electronic parts and cables** by taking them to a certified waste recycling company near to you where these materials are collected for later recycling and reuse or send them to the following address:
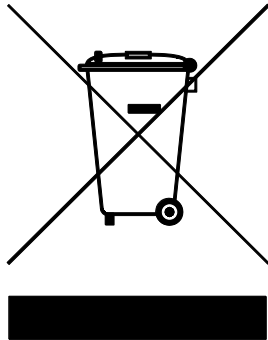
Frankenberg Metallhandel
Niederlassung Coburg
Gärtnersleite 8
D 96450 Coburg, Germany
Telefon: +49 9561 235344
Fax: +49 9561 235319
E-Mail: info@recycling-coburg.de
Internet: http://www.recycling-coburg.de

Please send the **locks**, marked 'zur Entsorgung / to be disposed of', to the following address:
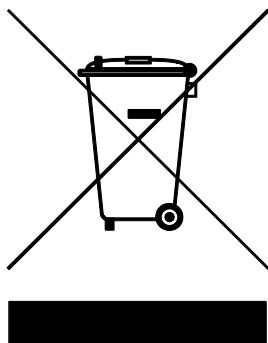
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Hermann-Köhl-Str. 22
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E-Mail: info@insys-locks.de
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           www.tresorschloss.de