

# M•LOCKS

## Basic line

EM1620

EM2020

EM2520

EM3020

EM3520

User manual  
V05 EN



**M•LOCKS BV**

Vlijtstraat 40 • 7005 BN Doetinchem • The Netherlands • [www.m-locks.com](http://www.m-locks.com)

## CONTENT INSTRUCTIONS FOR USE

- 1 Important instructions
- 2 Symbols and signals
- 3 Opening the lock
- 4 Opening the lock with time delay
- 5 Changing code (with the door open!)
- 6 Adding a new code/user
- 7 Delete second user
- 8 Setting the time delay and opening window time
- 9 Deleting the delay setting
- 10 Replacing the battery
- 11 Troubleshooting

- Before using the lock, please read the instructions for use carefully.
- The instructions for use only relate to the lock itself and not to how to operate the safe.
- Ensure that you **only** program the lock while the **safe door is open**.
- After changing the code, always try the code several times with the safe door open.
- **Only after several positive function tests (opening / closing) the safe door may be closed.**
- Each key entry is confirmed by an audible tone and visual signal. These signals are not referred to in the description that follows.
- Acoustic signals are always accompanied by the same optical signals.
- You have a maximum of 10 seconds for each key entry. If you do not make an entry via the keypad during this period of 10 seconds, the entry procedure will automatically abort. You must then start again from the beginning.
- After entering a valid code, a double signal sounds. An invalid entry will trigger a long tone.
- After entering an invalid code the first attempt, wait 20 seconds before entering the code again.
- If the code is entered incorrectly on four consecutive occasions, the keypad and the lock will be disabled for 5 minutes. During this period, the LED will flash every 10 seconds and you will hear a long tone when attempting to make an entry. Entering an incorrect code on two further occasions after the keypad has been re-enabled will trigger a new keypad lock-out period of 5 minutes. After entering a valid code you have four new occasions to enter the code and open the lock.
- The lock works with a six digit code.
- **At the time of delivery**, the lock is set to the standard **Manager Code of 1 2 3 4 5 6**. Change this code immediately to your own choice of Manager Code. Do not use personal or other simple data which can easily be found out for your Manager Code
- If needed, the owner of the Manager Code can add one user. This code must be immediately changed by the user in a code of their own choice. Do not use personal or other simple data for your user code.
- Please keep the code always carefully and protect it against improper use by unauthorized persons.
- When typing in your code cover the keypad so no one near you can see your code.
- Depending on the used lock / keypad and the way the lock is installed, there are several ways to open and to close a safe. By example with a lever or by turning the keypad. Please contact your safe supplier for more information about your specific situation.

**[!]** Our products fulfil the EN1300 requirements regarding resistance against electrostatic charge. In fact it may happen that the electrostatic charge of a user exceeds the extreme value many times. That's why we are asking you to touch the metal surface of the safe for discharging before operating the lock.

**[!]** **Caution! Don't forget your code, if lost, the lock can not be opened anymore!**

### ! Caution!

- The lock has been designed for use in a temperature range from +10°C to +50°C and a non-condensing humidity range from 30% to 80%.
- It may only be cleaned with a moist cloth (do not use aggressive cleaning agents).
- The lock may only be installed by qualified fitters.
- The lock may not be lubricated.
- Never open the lock housing. If it is necessary to disassemble the hardware, only do so in accordance with the technical instructions. If you fail to do so, the lock may no longer function properly and you will forfeit your right to warranty.

## 2 SYMBOLS AND SIGNALS



double audible tone, **correct**  
entry



LED **flashes**



digit on keypad



long audible tone, **incorrect**  
entry



LED **illuminated**



press and hold

## 3 OPENING THE LOCK



Enter the code (Manager Code set at the factory = 1-2-3-4-5-6), if the code is correct, a double signal sounds, you can now unlatch the door and open it. If the door is not opened within 3 seconds, the lock will automatically engage again. **EM3020**: to close the lock, press any key.

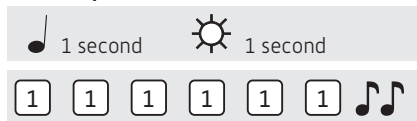
## 4 OPEN WITH TIME DELAY

**For example!**



Enter the code (i.e. 1-1-1-1-1-1), after entering a right code, a double signal sounds and time delay starts. During time delay expires, the light flashes every 10 seconds. After time delay has elapsed, a double signal sounds and the open window starts.

### For example!



During the open window, the light flashes and the locks beeps, every second. To open the lock, a valid code has to be entered again during the open window. After entering a right code, a double signal sounds. You can unlock the door. If the lock is not opened within 3 seconds, the lock will automatically lock again.

If the open window expires without entering a valid code, the lock is secured again with time delay.

If the lock is set to dual combo, one valid code starts time delay. During the open window, two valid codes have to be entered, to open the lock.

Press a random key to break off time delay.

## 5 CHANGING CODE (WITH THE DOOR OPEN!)



Press and hold '0' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter the old code 🎵🎵

### For example!



- Select your new personal code. Enter the new code 🎵🎵



- Enter the new code again 🎵🎵

If an incorrect code is entered on the second occasion, a long signal sounds and the old code remains valid.

## 6 ADDING A NEW CODE/USER



Press and hold '1' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter your personal Manager Code 🎵🎵

**For example!**



- Enter the new User Code 🎵🎵



- Enter the new User Code again 🎵🎵

If an incorrect code is entered on the second occasion, a long signal sounds and the old code remains valid.

## 7 DELETE SECOND USER



Press and hold '3' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter your personal Manager Code 🎵🎵

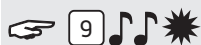
The user has been deleted.

## 8 SETTING THE TIME DELAY AND OPENING WINDOW TIME

**Time delay:** The time between the first and second code entry in minutes.

**Open window time:** The period of time in minutes during which the code can be entered a second time and the lock can be opened.

**Changing or deleting the time delay values can only be done in open window time.**



Press and hold '9' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter the Manager Code 🎵🎵



- Enter the delay setting and opening window time. Time delay min. 01 - max. 99 minutes.  
Open window time min. 01 - max. 19 minutes.  
In this example: 2602 for **a delay of 26 minutes** and **an opening window time of 2 minutes** 🎵🎵.



- Enter the delay setting and opening window time again 🎵🎵.

## 9 DELETING THE DELAY SETTING

The delay setting can only be changed or deleted during the open window time.



Enter a valid code. After the delay period the opening window time starts. The LED flashes 1x a second and beeps.



Press and hold '9' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter the Manager Code 🎵🎵



- Delete the delay and opening window time by entering **00 for the delay setting** and **01 for the opening window time**.



- Enter the delay setting and opening window time again 🎵🎵.

## 10 REPLACING THE BATTERY



If the lock emits a series of audible tones when opened, the battery is almost exhausted and must be replaced immediately.

You may **only use 9V ALKALINE Duracell, Duracell Industrial, Procell or Energizer alkaline batteries.**

### Battery compartment in entry unit

Open the battery compartment and replace the battery by a new one.

### Battery compartment inside the safe

In case of keypads starting with ST40xx and DE20xx, the battery compartment is located inside the safe. If the battery is completely exhausted, hold a fresh battery pressed against the poles on the front of the keypad, while entering the code, until the lock opens completely.

## 11 TROUBLESHOOTING

### The lock does not react.

#### a. Replace the battery

**Always** first replace the battery for a new 9V ALKALINE Duracell, Duracell Industrial, Procell or Energizer alkaline block battery.

#### b. Check the keypad

If the lock does not react, follow the procedure below to check that your keypad is working.



**Press and hold key '5'** until a double signal sounds. The LED will illuminate when performing the following actions:



Press all the keys one by one. If the key is OK a double signal sounds, if the key is not OK, a long signal sounds. the test will be aborted.

If one or more keys do not operate properly, please contact your supplier.

#### c. The lock does not emit any audible tones at all

The lock does not emit an audible tone when a key is pressed. The battery is exhausted, replace the battery. See point 9.

**d. I have forgotten my code**

For security reasons, M-LOCKS does not provide a code that you can use to open your lock. Please contact your supplier.

**The lock is difficult to move and open**

This is probably a problem with the lock bar mechanism, inside the safe door, and not a problem of the lock itself. This manual only relates to the lock and not the complete safe. Please contact the manufacturer of the safe in order to resolve this problem.

# M•LOCKS

## Multi Level Software Locks

EM2050

EM3050

EM3550

User manual  
V05 EN



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## CONTENT INSTRUCTIONS FOR USE

- 1 Important instructions
- 2 Symbols and signals
- 3 Opening in standard mode
- 4 Opening with dual combo
- 5 Opening with time delay
- 6 Changing code
- 7 Activating silent alarm
- MANAGER INSTRUCTIONS**
- 8 Activating users
- 9 Activating users with dual mode
- 10 Activating users with Dallas key
- 11 Disabling / enabling users not active in dual mode
- 12 Deleting users
- 13 Deleting users in dual mode
- 14 Setting the time delay and open window time
- 15 Deleting the delay setting
- 16 User audit
- 17 Lock audit
- 18 Replacing battery
- 19 Troubleshooting

## 1 IMPORTANT INSTRUCTIONS

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- Before using the lock, please read the instructions for use carefully.
- The instructions for use only relate to the lock itself and not to how to operate the safe.
- Ensure that you **only** program the lock while the **safe door is open**.
- After changing the code, always try the code several times with the safe door open.
- **Only after several positive function tests (opening / closing) the safe door may be closed.**
- Each key entry is confirmed by an audible tone and visual signal. These signals are not referred to in the description that follows.
- Acoustic signals are always accompanied by the same optical signals.
- You have a maximum of 10 seconds for each key entry. If you do not make an entry via the keypad during this period of 10 seconds, the entry procedure will automatically abort. You must then start again from the beginning.
- After entering a valid code, a double signal sounds. An invalid entry will trigger a long tone.
- After entering an invalid code the first attempt, wait 20 seconds before entering the code again.
- If the code is entered incorrectly on four consecutive occasions, the keypad and the lock will be disabled for 5 minutes. During this period, the LED will flash every 10 seconds and you will hear a long tone when attempting to make an entry. Entering an incorrect code on two further occasions after the keypad has been re-enabled will trigger a new keypad lock-out period of 5 minutes. After entering a valid code you have four new occasions to enter the code and open the lock.
- The lock works with a six digit code. In some cases it may be that the lock requires a 7-digit code. For simplicity, it is mentioned only one operation with 6-digit code in this guide.
- **At the time of delivery**, the lock is set to the standard **Manager Code of 1 2 3 4 5 6**. Change this code immediately to your own choice of Manager Code. Do not use personal or other simple data which can easily be found out for your Manager Code
- If needed, the owner of the Manager Code can add up to 9 codes / users. This code must be immediately changed by the user in a code of their own choice. Do not use personal or other simple data for your user code.
- **User 9** always has an **override code**. This means that user 9 can always open immediately after entering the first code, even if time delay has been activated.  
If users are only allowed to open with time delay, user 9 should not be activated.
- Please keep the code always carefully and protect it against improper use by unauthorized persons.
- When typing in your code cover the keypad so no one near you can see your code.
- Depending on the used lock / keypad and the way the lock is installed, there are several ways to open and to close a safe. By example with a lever or by turning the keypad. Please contact your safe supplier for more information about your specific situation.

**!** Our products fulfil the EN1300 requirements regarding resistance against electrostatic charge. In fact it may happen that the electrostatic charge of a user exceeds the extreme value many times. That's why we are asking you to touch the metal surface of the safe for discharging before operating the lock.

**!** **Caution! Don't forget your code, otherwise the lock can not be used anymore!**

**! Caution!**

- The lock has been designed for use in a temperature range from +10°C to +50°C and a non-condensing humidity range from 30% to 80%.
- It may only be cleaned with a moist cloth (do not use aggressive cleaning agents).
- The lock may only be installed by qualified fitters.
- The lock may not be lubricated.
- Never open the lock housing. If it is necessary to disassemble the hardware, only do so in accordance with the technical instructions. If you fail to do so, the lock may no longer function properly and you will forfeit your right to warranty.

**2 SYMBOLS AND SIGNALS**

double audible tone, **correct**  
entry



LED **flashes**



digit on keypad



long audible tone, **incorrect**  
entry



LED **illuminated**



press and hold



Dallas Key

**3 OPENING IN STANDARD MODE**

**For example!**



**EM2050:** Enter the code (i.e. 1-1-1-1-1-1)

After entering a right code, a double signal sounds, you can now unlock the door and open it. If the door is not opened within 3 seconds, the lock will automatically lock again.

**EM3550 / EM4050:**

After entering a right code (i.e. 1-1-1-1-1-1), a double signal sounds, you can now open the lock, unlock the door and open it. If the lock is not opened within 3 seconds, the lock will automatically lock again.

After entering a right code at the **EM3050** the bolt will be retracted. Depending on the programming of the **EM3050** the lock will close automatically after 5 seconds or push a random key to close (PTC = Push To Close).

## 4 OPENING WITH DUAL COMBO

For example!



and



Two users are required to open with dual combo. For example 1-1-1-1-1-1 and 2-2-2-2-2-2.

**EM2050:** Enter codes (i.e. 1-1-1-1-1-1 and 2-2-2-2-2-2). After entering right codes, a double signal sounds, you can now unlock the door and open it. If the door is not opened within 3 seconds, the lock will automatically lock again.

**EM3550 / EM40450:** Enter codes (i.e. 1-1-1-1-1-1 and 2-2-2-2-2-2). After entering right codes, a double signal sounds, you can now open the lock, unlock the door and open it. If the lock is not opened within 3 seconds, the lock will automatically lock again.

After entering two right codes at the **EM3050** the bolt will be retracted. Depending on the programming of the **EM3050** the lock will close automatically after 5 seconds or push a random key to close (PTC = Push To Close).

## 5 OPENING WITH TIME DELAY

For example!



Enter the code (i.e. 1-1-1-1-1-1), after entering a right code, a double signal sounds and time delay starts. During time delay expires, the light flashes every 10 seconds. After time delay has elapsed, a double signal sounds and the open window starts.

For example!



During the open window, the light flashes and the locks beeps, every second. To open the lock, a valid code has to be entered again during the open window. After entering a right code, a double signal sounds. You can unlock the door. If the lock is not opened within 3 seconds, the lock will automatically lock again.

If the open window expires without entering a valid code, the lock is secured again with time delay.

If the lock is set to dual combo, one valid code starts time delay. During the open window, two valid codes have to be entered, to open the lock.

Press a random key to break off time delay.

## 6 CHANGING CODE (WITH THE DOOR OPEN!)



Press and hold '0' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter the old code 🎵🎵



- Select your new personal code. Enter the new code 🎵🎵



- Enter the new code again 🎵🎵

If an incorrect code is entered on the second occasion, a long signal sounds and the old code remains valid.

## 7 ACTIVATING SILENT ALARM

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If, by set up, silent alarm is programmed and the lock is connected to an alarm system.

**For example!**



In case of a hold up situation, a silent alarm can be sent by entering the last digit + 1. If the last number is a 9, you have to enter 0, to send a silent alarm.

For example: Valid code 2-2-2-2-2-2, alarm will be sent by entering: 2-2-2-2-2-3. This code works as a valid code. The silent alarm is indiscernibly for an outsider.

## MANAGER INSTRUCTIONS

### 8 ACTIVATING USER



Press and hold '1' until a double signal sounds. The LED will illuminate when performing the following actions:

#### For example!



- Enter your personal Manager Code 🎵🎵



- Enter User ID 1-9 (only if more than 1 user is programmed)



- Enter the new User Code 🎵🎵



- Enter the new User Code again 🎵🎵

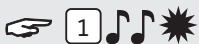
### 9 ACTIVATING USERS IN DUAL MODE (IF MANAGER IS IN DUAL MODE)

Enter a random User Code.

#### For example!



- Enter random User Code 🎵🎵



Press and hold '1' until a double signal sounds. The LED will illuminate when performing the following actions:



- Enter your personal Manager Code 🎵🎵



- Enter User ID 1-9 (only if more than 1 user is programmed)



- Enter User Code



- Enter User Code again

## 10 ACTIVATING USER WITH DALLAS KEY

Requirements: an installed entry unit with integrated Dallas reader and Dallas key.



Press and hold '1' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter your personal Manager Code



- Enter User ID 1-9 (only if more than 1 user is programmed)



- Enter the User Code , hold the Dallas key to the key reader after the last digit



- Enter the new User Code again again hold the Dallas key to the key reader after the last digit

## 11 DISABLING /ENABLING USERS (NOT ACTIVE IN DUAL MODE)



Press and hold '2' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter your personal Manager Code 🎵🎵

All users are disabled. Please repeat this procedure to enable all users.

## 12 DELETING USERS



Press and hold '3' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter your personal Manager Code 🎵🎵



- Enter User ID of the user that has to be deleted 🎵🎵

The user has been deleted. To activate user again please refer to function "activate user".

## 13 DELETING USERS IN DUAL MODE (IF MANAGER IS IN DUAL MODE)

Enter a random User Code.

**For example!**



- Enter random User Code 🎵🎵



Press and hold '3' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter your personal Manager Code 🎵



- Enter User ID of the user that has to be deleted 🎵

The user has been deleted. To activate user again please refer to function “activate user”.

## 14 SETTING THE TIME DELAY AND OPEN WINDOW TIME

**Time delay:** The time between the first and second code entry in minutes.

**Open window time:** The period of time in minutes during which the code can be entered a second time and the lock can be opened.

**Changing or deleting the time delay values can only be done in open window time.**



Press and hold '9' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**



- Enter the Manager Code 🎵



- Enter the delay setting and open window time. Time delay min. 01 - max. 99 minutes.  
Open window time min. 01 - max. 19 minutes.  
In this example: 2602 for **a delay of 26 minutes** and **an open window time of 2 minutes** 🎵



- Enter the delay setting and open window time again 🎵

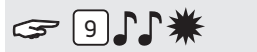
The time delay and open window values are directly activated for all codes.

## 15 CHANGING THE DELAY SETTING AND OPEN WINDOW

**The delay setting can only be changed or deleted during the open window time.**

**For example!**

Enter a valid code. Time delay starts, the light flashes. After the time delay period the open window time starts. The LED flashes 1x a second and beeps.



Press and hold '9' until a double signal sounds. The LED will illuminate when performing the following actions:

**For example!**

- Enter the Manager Code



- Delete the delay and open window time by entering **00 for the delay setting** and **01 for the open window time**.



- Enter the delay setting and open window time again

## 16 USER AUDIT



Press and hold '7' until a double signal sounds. The LED will illuminate when performing the following actions. **Listen to tone signals!**

**For example!**

- Enter the Manager Code



- Enter 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 to stop

Double signal = active user with code

One signal = active user without code (or disabled)

Long signal = user not active

### For Example!



User 4 is an active user with code.



- Enter '0' to end the user audit

## 17 LOCK AUDIT (ONLY IF 2 OR MORE USERS ARE INSTALLED)

For auditing a lock, entry unit with Dallas reader and Audit Pack for MLS locks are required.



Press and hold '7' until a double signal sounds. The LED will illuminate when performing the following actions:

### For example!



- Enter the Manager Code 🎵



- Hold the Dallas Key to the Dallas reader till double signal 🎵

The audit file has been downloaded to the Dallas Key. The audit gives a chronological list of users that has opened the lock.

## 18 REPLACING THE BATTERY



If the lock emits a series of audible tones when opened, the battery is almost exhausted and must be replaced immediately.

You may **only use 9V ALKALINE Duracell, Duracell Industrial, Procell or Energizer alkaline batteries.**

### Battery compartment in entry unit

Open the battery compartment and replace the battery by a new one.

### Battery compartment inside the safe

In case of keypads starting with ST40xx and DE20xx, the battery compartment is located inside the safe. If the battery is completely exhausted, hold a fresh battery pressed against the poles on the front of the keypad, while entering the code, until the lock opens completely.

## 19 TROUBLESHOOTING

### The lock does not react

#### a. Replace the battery

**Always** first replace the battery for a new 9V ALKALINE Duracell, Duracell Industrial, Procell or Energizer alkaline block battery.

#### b. Check the keypad

If the lock does not react, first follow the procedure below, to check if your keypad is working.



Press and hold key '5' until a double signal sounds. The LED will illuminate when performing the following actions:



Press all the keys one by one. If the key is OK a double signal sounds, if the key is not OK, a long signal sounds. the test will be aborted.

If one or more keys do not operate properly, please contact your supplier.

#### c. The lock does not emit any audible tones at all

The lock does not emit an audible tone when a key is pressed. The battery is exhausted, replace the battery. See point 18.

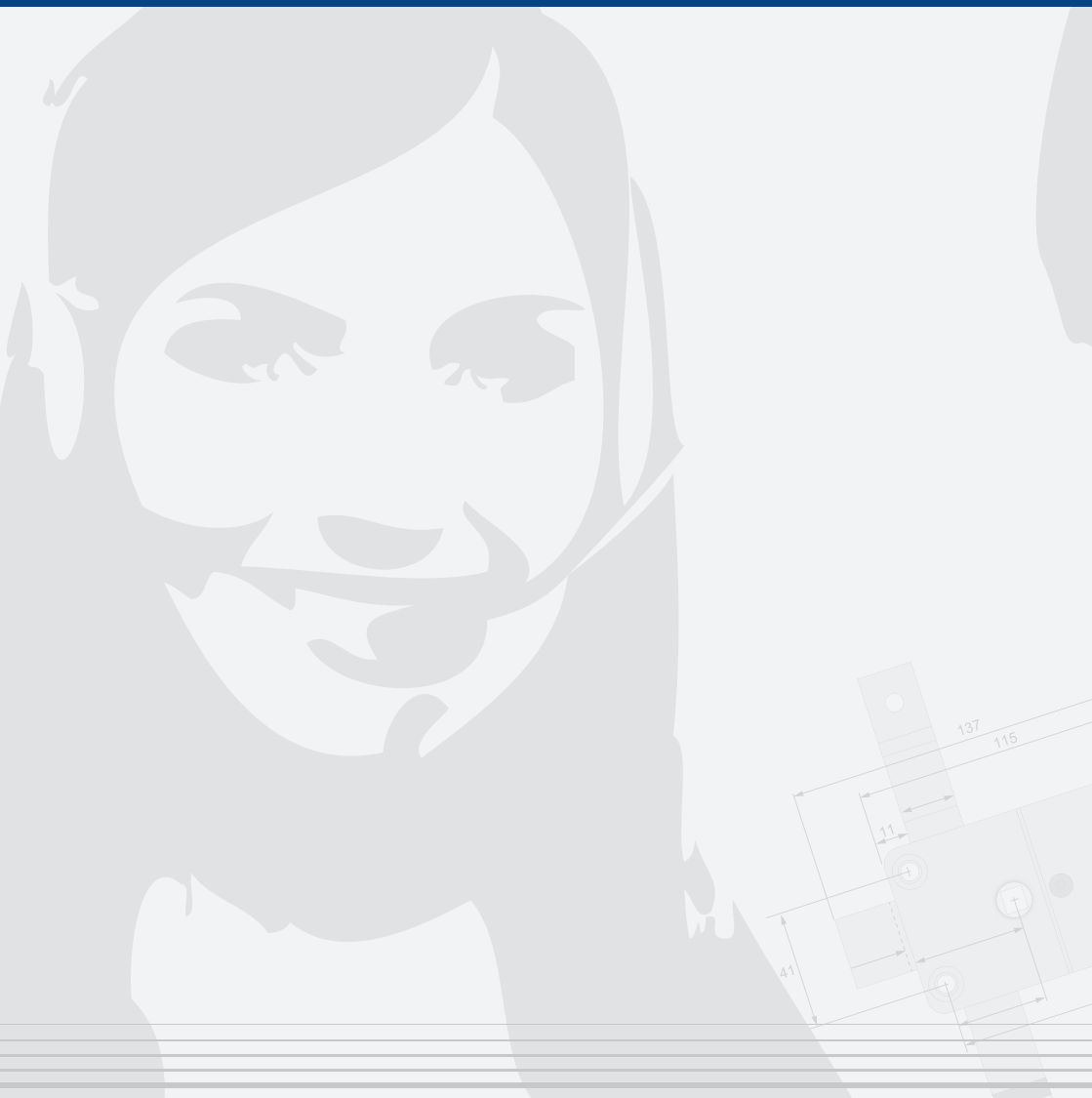
#### d. I have forgotten my code

For security reasons, M-LOCKS does not provide a code that you can use to open your lock. Please contact your supplier.

### The lock is difficult to move and open

This is probably a problem with the lock bar mechanism, inside the safe door, and not a problem of the lock itself. This manual only relates to the lock and not the complete safe. Please contact the manufacturer of the safe in order to resolve this problem.

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