Operating Instructions

Electronic High-Security Lock

STELLAR
Series

# ML 18-1 Type Motorized Lock
Universal / Grand and Grand Direct

- Business -

Operating Instructions Stellar ML-18-1 Motorized Lock (Business)

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1.General Instructions

- Carefully read the operating instructions before making changes to the lock. Operating errors are excluded from the warranty.

- When entering the code, ensure that the code cannot be seen by other persons and be certain that no one is standing behind you.

- The lock confirms each press of a button with an acoustic signal. Completed or interrupted processes are indicated by the illumination of the LED, combined with an acoustic signal. (see overview of signals in these operating instructions).

⚠ Delays of more than 10 seconds between pressing 2 buttons when entering the code will interrupt the ongoing entry.

⚠ If errors are made while entering the opening code, the opening process can be cancelled immediately by pressing the button Ⓒ . You can then begin the opening process again.

⚠ To cancel the programming process if you have made an entry error, please wait 10 seconds (timeout) before pressing the next button. After the 10 seconds timeout, the programming process is cancelled, and you can begin the programming process again. You can also cancel the process with the Ⓒ button.

- The lock manages up to 10 different, six-digit opening codes and one super code. A single-digit user ID must be entered as the first numeral before each opening code. This serves only to identify the user and is not part of the six-digit opening code. (e.g. 1 654321, 1 = user ID / 654321 = personal opening code).

- We recommend that you regularly check the safe and the operating unit for signs of manipulation. If you detect signs of manipulation, we recommend that you replace the lock in coordination with your service partner.

⚠ The following codes are preset from the factory and <u>must be changed before using the lock for security reasons (otherwise, your insurance coverage is at risk).</u>

| User ID	Code (personal code)
0 (Master)	1 2 3 4 5 6 (code always six-digit)
9 (User)	1 1 1 1 1 1 (code always six-digit)
Super code	1 1 1 1 1 1 1 (code always seven-digit)

Please take note of the remarks regarding the function and use of the super code in these operating instructions.

⚠ Store the code in a <u>safe</u> place and do not use simple codes, such as 111111, birthdays, or similar personal data.

⚠ <u>Before using</u> the lock, please always change the user / master code and super code. Otherwise, the lock can be opened by anyone using the preset factory super code.

⚠ If you no longer know the super code, the safe can only be opened by means of emergency opening. <u>For security reasons, it is not possible to "retrieve" the user / super code.</u>

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⚠️ If you no longer know the master or user code, the lock can be opened with the help of the super code.

⚠️ The lock settings can only be changed when the lock is open.

To delete previous, unwanted button entries, we recommend pressing the [C] button before beginning a programming process.

⚠️ Depending on the entry / programming status, incorrect / incomplete entries will be cancelled with an error notification or after 10 seconds (timeout). Cancellation is indicated by the extended illumination of the LED in conjunction with an acoustic signal.

⚠️ The lock is opened and closed by a motor. When the motor is in motion, the LED above the keypad illuminates. Never touch the lock handle during the motor's opening / closing process. This can lead to lock damage. There should be approximately 3 seconds between entering the code and using the handle. Completion of the opening / closing process is indicated by a one-time acoustic signal, together with the illumination of the red LED. Opening and closing processes with the door handle should be performed in a smooth manner. Jerky movements can damage the lock.

⚠️ Only use batteries that are pursuant to the technical specifications.

Symbols and their meanings in the operating instructions

[*] [c] [0] – [9]	Press the respective button	[*] x sec	Keep the indicated button pressed for x-seconds
🕐 3 sec	Acoustic signal after or every 3 seconds	🟠 🟠…	LED illuminates / blinks - briefly LED illuminates for an extended period
🔊	Brief acoustic signal	🔊))	Long acoustic signal
🔓	Lock open	🔒	Lock closed
✔️	Process completed	✖️	Error
↻ / ↺	Open / close door handle	⊤̄	Press door closed

If several symbols are listed one after another, this means the following (example):

[*] 9 sec 🔊 🟠
     = Keep *-button pressed for 9 seconds, after which there will be an acoustic signal and LED
display

🕐 6 sec 🔊 🟠 🔊 🟠 🔊 🟠
     = After 6 seconds, you will hear an acoustic signal in conjunction with an LED display

3x 🔊 🟠
     = You will hear a brief acoustic signal 3 times in conjunction with an LED display

🔊 🟠 🕐 5 sec
     = An acoustic signal will sound every 5 seconds in conjunction with an LED display

2. Functional Overview and Description

Battery installation / lock activation / battery low voltage indication
After installing / changing the battery, the lock will be <u>ready for operation after approximately 2 seconds.</u> Operational readiness will be indicated by a brief acoustic signal and the illumination of the LED. If the lock has been at rest for an extended period, please press the $\boxed{\text{C}}$ button and wait for the acoustic signal and the illumination of the LED before using.

Note: Low battery voltage (starting at 6.5 V) will be indicated after each operation (repeated acoustic signal in conjunction with the red LED). <u>The battery should be replaced immediately.</u>

Users
The lock can manage up to 10 different users. <u>User 0 is the master</u> and is the only one who can perform programming. Each user is assigned <u>one</u> personal code.

Blocking of the bolt slide
Blocking of the bolt slide is indicated by 2 long acoustic signals in conjunction with the illumination of the red LED. The procedure for unblocking is described under Error Description.

Code entry
The <u>currently valid code</u> must always be entered. <u>In the examples listed, the process for code entry is described on the basis of the preset factory code</u>.

C-button
The $\boxed{\text{C}}$ button performs the following functions:

- Locking an unlocked lock
- Cancellation of an opening code entry or programming
- Brief interruption of the door contact monitoring error notification

Volume
The signal volume can be set to "quiet" or "loud". "Loud" is set as standard from the factory.

Error description / signal table
Here, the individual lock signals are explained, and tips given for troubleshooting in case of malfunctions.

Lockout
The entry of four invalid opening codes will result in operation being blocked for five minutes (lockout). If another incorrect entry is made after the lockout expires, the 5-minute lockout period will begin again. It is only possible to open the lock after the <u>expiration</u> of the lockout period by entering the valid opening / user code or the super code. The lockout period is 5 minutes, during which the red LED lights up every 8 seconds.
After the lockout period expires, each incorrect entry once again leads to a lockout period of 5 minutes. During the lockout period, <u>which was caused by the incorrect entry of the user code,</u> the lock can be opened with the valid super code. Entry of the super code overrides the remaining lockout time.

Note: A lockout caused by incorrect entry of the super code cannot be overridden.
Note: Entries during the lockout period will lead to an extension of the respective lockout period.

Expiration of the lockout period is indicated by 3 long acoustic signals in conjunction with the illumination of the red LED.

Master code (user 0)
The master code is required for lock programming and to change the super code.

Restart
If entries cannot be made as usual, the operating system of the lock can be restarted. In this case, the lock settings and codes are retained.

Emergency power
If the battery voltage is too low (< 6.5 volts) and the lock can no longer be opened, the lock can be externally supplied with power. For more on this, read the section "Emergency power" in these operating instructions.

Opening code (user / master)
The opening code for the user / master consists of the single-digit user ID and the personal 6-digit user / master code.

Opening protocol
Only events are read out. The respective corresponding code is not read out for security reasons. Standard readout is provided acoustically via the keypad or by using optional readout software in conjunction with an optional hardware adaptation. The optional readout software is described in the documentation "Readout software".

Super code
The super code is an emergency code. With the super code, you can open the lock and reset the master to the master code 111111. Always change the super code before using for the first time.
⚠ Please do not use the super code as the standard opening code.

Lock mode
The lock can be operated with up to 10 users in safe mode (standard). Alternatively, a money transport mode can be activated for users 7-9 in order to circumvent a programmed opening delay.

Door / lock monitoring
In this mode, the closing status of a door sensor and the locked condition (open / closed) are monitored. The function prevents the lock from being locked when the safe door is not completely closed. Three variants are available. Lock function 2 includes automatic locking.

Dual control
In dual control mode, the lock can only be opened by 2 different and authorized users (code linking).

Time functions
For controlled access to the safe, the lock can be programmed with an opening delay in conjunction with an opening time window. This can be programmed with or without a dual control (code linking).

Programming
The lock is programmed in the following sequence: authorization, selection of function, entry of parameters. With the exception of a code change, only the master (0) is authorized to program functions.

The following function numbers are available.

0	Code change	5	Super code change
1	User administration	6	Code linking
2	Lock mode	7	Opening delay
3	Volume	8	Opening time window
4	Opening protocol	9	Door monitoring

The exact procedure for each individual case and be available parameters are described in more detail in the respective sections of these instructions.

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3. Opening / closing

3.1 Opening

The code must always be entered with the <u>current user code</u>. In the following example, the sequence is described with the preset factory code. The procedure is identical for all users 0-9.

🔒

Button	Signal	Description
*	🔊 🟠	Start code entry
0	🔊 🟠	User ID (0-9)
1 2 3 4 5 6	🔊 🟠 (after each press of a button)	Enter opening code
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠 🔊 🟠 = ✔ Open	🔊 🟠 = ✖ Error
After 3 seconds	↻ Turn door handle	Open door

After the code is entered correctly and the lock bolt is retracted completely, the door can be opened by means of the door handle. The red LED illuminates during the retraction of the motorized bolt.

⚠ Only turn the handle once the lock has been completely unlocked (LED blinks 2x). There should be at least 3 seconds between the entry of the code and the use of the handle.

⚠ In order to prevent damage to the lock, turn the door handle uniformly and not in a jerky manner.

⚠ Following an incorrect code entry, the opening process can be repeated three times. After the fourth incorrect entry, a lockout period of 5 minutes goes into effect (lockout). During the lockout, the LED briefly illuminates every 8 seconds. Please avoid pressing any buttons during the lockout. <u>This will lead to an extension of the lockout period</u>. The end of the lockout period is indicated by three long acoustic signals in conjunction with the illumination of the red LED.

3.2 Closing

Before locking the lock, please ensure that the door is closed securely, and the door handle is completely in the closed position (locking bolts are completely extended). In order to lock the lock, press the [C] button. After pressing the [C] button, the lock bolt will move into the closed position.

🔓

Button / example	Signal	Description
Press door closed	⊤̄	Door must be solidly in contact with the body of the safe
Lock door handle / bolt work completely	↻	Locking bolts are completely extended
[C]	🔊 🟠 🟠	Motorized bolt locks / LED illuminates
Signal at the end of the locking process	🔊 🟠 = ✔ Locked	🔊 🟠 🔊 🟠 Motorized bolt blocked[1]

⚠ In case of a blocking indication, please see sections 2 and 16 of these operating instructions

⚠ To prevent malfunctions, the bolt work handle should not be turned for at least 3 seconds after pressing the [C] button.

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⚠️ **After each closing procedure, ensure that the safe is actually locked.** In case of malfunctions, such as the door not correctly closed, the lock can also be locked in standard mode. Proper door contact is only monitored when the option "Monitor door contact" and the underlined optional door contact sensor are activated.

⚠️ If the lock is not locked, repeat the closing procedure. This can be done as often as needed.

4. Changing the code (user)

The current code must always be entered. In the following example, the sequence is described with the preset factory code with the lock unlocked. The procedure is identical for all users 0-9. Each user can only change his / her own code. Users 1-9 must first be established. User 0 and 9 are set as standard from the factory.

🔓 (with lock unlocked)

Button	Signal	Description
[*] 3 sec	🔊🟠 3 sec 🔊🟠🔊🟠🔊🟠	Start programming
[0]	🔊🟠	User ID (0-9)
[1] [2] [3] [4] [5] [6]	🔊🟠 (after each press of a button)	Enter user code
[0]	🔊🟠	Function selection
[?] [?] [?] [?] [?] [?]	🔊🟠 (after each press of a button)	Enter new user code
[*]	🔊🟠	Confirm
[?] [?] [?] [?] [?] [?]	🔊🟠 (after each press of a button)	Repeat new user code
[*]	🔊🟠🔊🟠 = ✅ Changed	🔊🟠 = ❌ Error

⚠️ If a long acoustic signal sounds, the opening code was not changed due to an incorrect entry. The old code is still active. The procedure must be repeated. The acoustic signal sounds in conjunction with an LED display.

⚠️ After a successful code change, the new opening code must be tested by locking and unlocking the lock numerous times with the door open. A successful code entry is always indicated by two short acoustic signals in conjunction with the illumination of the red LED.

⚠️ For security reasons, you should not write down the newly set opening code. Should you do this, however, keep this note in a secure location. Do not store it in the safe or near the safe.

⚠️ If the programming procedure is interrupted for longer than 10 seconds, the programming procedure is cancelled (a long acoustic signal sounds with a red LED). The old code is still active. Please begin the programming procedure anew.

5. Create or delete user

Only the master (user 0) can create or delete users 1-9. User 0 / master is preset from the factory with the code ⬜1 ⬜2 ⬜3 ⬜4 ⬜5 ⬜6 and must be changed before using. Please always conduct programming with the current master code.

🔓 (with lock unlocked)

Button	Signal	Description
*️ 3 sec	🔊🟠 3 sec 🔊🟠🔊🟠🔊🟠	Start programming
0️	🔊🟠	User ID (Master)
1️ 2️ 3️ 4️ 5️ 6️	🔊🟠 (after each press of a button)	Enter master code
1️	🔊🟠	Function selection
?️ (entry of ID 1-9)	🔊🟠	User ID (1-9)
?️ (entry of 0 or 1)	🔊🟠	0 = delete | 1 = create
*️	🔊🟠🔊🟠 = ✔ Changed	🔊🟠 = ✖ Error

When a user has been successfully created, his / her code is set as ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 and must be changed to an individual code in the next step pursuant to section 4. It is not possible to delete the master.

⚠️ If a long acoustic signal sounds, the user was not created due to an incorrect entry. The old code is still active. You must repeat the procedure. The old lock settings are still in effect.

⚠️ If a user has already been created, his / her code is reset to ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 by the repeated creation and must be changed again. A forgotten user code can thus be reset to ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 ⬜1 by the master.

6. Set lock mode

Only the master (user 0) can set the lock for the following application areas.

Mode	Description
0	Safe mode (standard setting): A programmed opening delay is in effect for all users (0-9).
1	Money transport mode: A programmed opening delay is in effect for users 0-6. Users 7-9 can circumvent the opening delay.

🔓 (with lock unlocked)

Button	Signal	Description
*️ 3 sec	🔊🟠 3 sec 🔊🟠🔊🟠🔊🟠	Start programming
0️	🔊🟠	User ID (Master)
1️ 2️ 3️ 4️ 5️ 6️	🔊🟠 (after each press of a button)	Enter master code
2️	🔊🟠	Function selection
?️ (0-1)	🔊🟠	Select mode 0 or 1
*️	🔊🟠🔊🟠 = ✔ Set	🔊🟠 = ✖ Error

If a long acoustic signal sounds, the mode was not changed due to an incorrect entry. You must repeat the procedure.

7. Volume, acoustic signal

Only the master (user 0) can set the acoustic signals of the lock to loud or quiet. From the factory, the lock is preset to "loud" (1). In the example, programming is conducted with the preset factory code.

🔓 (with lock unlocked)

Button	Signal	Description
[*] 3 sec	🔊🟠3 sec 🔊🟠🔊🟠🔊🟠	Start programming
[0]	🔊🟠	User ID (Master)
[1][2][3][4][5][6]	🔊🟠 (after each press of a button)	Enter master code
[3]	🔊🟠	Function selection
[?] (0 / 1)	🔊🟠	0 = quiet | 1 = loud
[*]	🔊🟠🔊🟠 = ✓ Changed	🔊))🟠 = ✖ Error

If a long acoustic signal sounds, the mode was not changed due to an incorrect entry. You must repeat the procedure.

8. Query opening protocol

The lock saves the events of the last 32 users who have opened it. This protocol can only be queried by the master. The protocol is output through a varying number of acoustic / visual signals in accordance with the table below. The latest event is output as the first event.

🔓 (with lock unlocked)

Button	Signal	Description
[*] 3 sec	🔊🟠3 sec 🔊🟠🔊🟠🔊🟠	Start programming
[0]	🔊🟠	User ID (Master)
[1][2][3][4][5][6]	🔊🟠 (after each press of a button)	Enter master code
[4]	🔊🟠	Start protocol
[*]	🔊🟠🔊🟠 Start opening protocol	🔊))🟠 = ✖ Error

Signal description

Signal		Description	Signal		Description
1x	🔊🟠	User 0	8x	🔊🟠	User 7
2x	🔊🟠	User 1	9x	🔊🟠	User 8
3x	🔊🟠	User 2	10x	🔊🟠	User 9
4x	🔊🟠	User 3	11x	🔊🟠	Super code
5x	🔊🟠	User 4	3x	🟠	Battery low voltage
6x	🔊🟠	User 5	4x	🟠	Dual control activated
7x	🔊🟠	User 6	5x	🟠	Dual control deactivated
1x	🔊))🟠	Separates individual events			
1x	🔊))🟠	End opening protocol			

Note: The opening protocol cannot be interrupted. No entries are possible during the output of the opening protocol.

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9. Super code functions

From the factory, the super code is set at 1 1 1 1 1 1 1 (7x1). With the super code, the lock can be unlocked, the master code reset, and the user lockout times, set lock mode, dual control, and time programs circumvented. Please change the code before using your lock.

9.1 Change super code

The super code can only be changed with the master code.

🔓 (with lock unlocked)

Button	Signal	Description
* 3 sec	🔊 🟠3 sec🔊 🟠🔊 🟠🔊 🟠	Start programming
0	🔊 🟠	User ID (Master)
1 2 3 4 5 6	🔊 🟠 (after each press of a button)	Enter master code
5	🔊 🟠	Function selection
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	Enter new super code
*	🔊 🟠	Confirm
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	Repeat new super code
*	🔊 🟠 🔊 🟠 = ✓ Changed	🔊🟠 = ✖ Error

⚠️ The super code is not a regular opening / user code and is only intended for emergencies. The factory setting must be changed before first use for security reasons.

⚠️ If a long acoustic / visual signal is emitted, the super code was not changed due to an incorrect entry or timeout. The old code is still active. The procedure must be repeated. The acoustic signal sounds in conjunction with an LED display.

⚠️ After a successful super code change, the new super code must be tested by locking and unlocking the lock numerous times with the door open.

⚠️ For security reasons, you should not write down the set super code. Should you do this, however, keep this note in a secure location. Do not store it in the safe or near the safe.

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9.2 Unlock with the super code

If the master code is lost, during an active lockout of the user, active dual control, activated lock mode, or active time functions, the lock can be unlocked with the super code. The super code is always 7-digit.

🔒

Button	Signal	Description
[*] 9sec	🔊🟠 9sec 🔊🟠🔊🟠🔊🟠	Start code entry
[1][1][1][1][1][1][1]	🔊🟠 (after each press of a button)	Enter current super code
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠🔊🟠 = ✔️ Open	🔊))🟠 = ✖️ Error
After 3 seconds	↻ Turn door handle	Open door

After the code is entered correctly and the motorized lock bolt is retracted completely, the door can be opened by means of the door handle. The red LED illuminates during the retraction of the motorized bolt.

⚠️ Turn the handle 3 seconds after the entry of the code at the earliest.

⚠️ In order to prevent damage to the lock, please turn the door handle uniformly and not in a jerky manner.

⚠️ Following an incorrect code entry, the opening process can be repeated three times. After three incorrect entries, a lockout period of 5 minutes goes into effect (lockout). During the lockout, the LED briefly illuminates every 8 seconds. Please avoid pressing any buttons during the lockout. This will lead to an extension of the lockout period.

9.3 Reset master code by means of the super code

If the master code is lost, the master code can be reset with the super code.

🔓 (with lock unlocked)

Button	Signal	Description
[*] 12 sec	🔊🟠 3 sec 🔊🟠🔊🟠🔊🟠 6 sec 🔊🟠🔊🟠🔊🟠 3 sec 🔊🟠🔊🟠🔊🟠	Start programming
[0]	🔊🟠	
[1][1][1][1][1][1][1]	🔊🟠 (after each press of a button)	Current super code
[0]	🔊🟠	
[1][1][1][1][1][1][1]	🔊🟠 (after each press of a button)	Current super code
[*]	🔊🟠🔊🟠 = ✔️ Changed	🔊))🟠 = ✖️ Error

⚠️ After a successful reset, the master code (user 0) is set to [1][1][1][1][1][1]. For security reasons, you should change this opening code before using the lock further.

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10. Code linking (dual control)

Activation of code linking (dual control) ensures that the lock can only be unlocked by 2 assigned users acting simultaneously. The combination of users can be chosen at will (no set assignment).

10.1 Activate or deactivate code linking

Code linking can only be activated or deactivated by the master (0).

🔓 (with lock unlocked)

Button	Signal	Description
* 3 sec	🔊 🟠 3 sec 🔊 🟠 🔊 🟠 🔊 🟠	Start programming
0	🔊 🟠	User ID (Master)
1 2 3 4 5 6	🔊 🟠 (after each press of a button)	Enter master code
6	🔊 🟠	Function selection
? (0 / 1)	🔊 🟠	0 = deactivate | 1 = activate
*	🔊 🟠 🔊 🟠 = ✔ Changed	🔊 🟠 = ✖ Error

If a long acoustic signal sounds, the mode was not changed due to an incorrect entry. You must repeat the procedure.

10.2 Open with two user codes

🔒

Button	Signal	Description
*	🔊 🟠	1. Start entry
?	🔊 🟠	1. User ID (0-9)
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	1. Enter opening code
*	🔊 🟠	1. End entry
Begin entry for user 2		
*	🔊 🟠	2. Start entry
?	🔊 🟠	2. User ID (0-9)
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	2. Enter opening code
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠 🔊 🟠 = ✔ Open	🔊 🟠 = ✖ Error
After approximately 3 seconds	↻ Turn door handle	Open door

⚠ The 1st and 2nd opening codes must be different users.

11. Time functions

The lock can be programmed with an opening delay of 0 – 255 minutes. The opening delay determines how many minutes the lock cannot be opened after the entry of the code of the user (0 to 9). The opening delay begins with the entry of the opening code of the user (0 to 9). The opening delay is <u>always</u> coupled to the opening time window. The opening time window determines the time in which the lock can be opened after the expiration of the opening delay. The opening delay and opening time window can be set for 1 to 255 minutes.

⚠️ <u>From the factory,</u> the is lock preset with an <u>opening delay of 0 min</u> and an <u>opening time window of 5 minutes (lock unlocks immediately after the entry of the opening code).</u>

⚠️ With the super code, the opening delay / opening time window can be circumvented.

⚠️ It is not possible to use the opening delay without an opening time window. The narrowest opening time window is 1 minute.

11.1 Activate / deactivate opening delay (OD)

The opening delay can <u>only</u> be activated / deactivated by the <u>master</u> (user 0).

🔓 (with lock unlocked)

Button	Signal	Description
[*] 3 sec	🔊 🟠3 sec 🔊 🟠 🔊 🟠 🔊 🟠	Start programming
[0]	🔊 🟠	User ID (Master)
[1] [2] [3] [4] [5] [6]	🔊 🟠 (after each press of a button)	Enter master code
[7]	🔊 🟠	Function selection
[?] [?] [?] (000 - 255)*	🔊 🟠 (after each press of a button)	000 = off | 255 = max
[?] [?] [?] (000 - 255)*	🔊 🟠 (after each press of a button)	Repeat number of minutes
[*]	🔊 🟠 🔊 🟠 = ✔️ Changed	🔊🟠 = ✖️ Error

*Please always give the delay time (OW) as a 3-digit number (e.g. 003 = 3 minutes)

⚠️ From the factory, the opening delay is set to 000 (zero minutes). This means that the lock opens immediately after the correct entry of the code. The opening delay is not in effect for the super code. The lock opens immediately when the super code is entered.

11.2 Set opening time window (OW)

The opening time window determines how long (in minutes) the lock can be opened after the expiration of the opening delay. The opening time window <u>can only be set by the master</u> (user 0).

⚠️ The time window is set at 5 minutes as standard. The narrowest opening time window is 1 minute (001).

Set opening time window (OW)

🔓 (with lock unlocked)

Button	Signal	Description
* 3 sec	🔊 🟠 3 sec 🔊 🟠 🔊 🟠 🔊 🟠	Start programming
0	🔊 🟠	User ID (Master)
1 2 3 4 5 6	🔊 🟠 (after each press of a button)	Enter master code
8	🔊 🟠	Function selection
? ? ? (001 - 255)*	🔊 🟠 (after each press of a button)	001 = 1 min | 255 = 255 min
? ? ? (001 - 255)*	🔊 🟠 (after each press of a button)	Repeat number of minutes
*	🔊 🟠 🔊 🟠 = ✔️ Changed	🔊 🟠 = ✖️ Error

*Please always give the opening time window (OW) as a 3-digit number (e.g. 003 = 3 minutes)

11.3 Open with active opening delay (OD) with the opening time window (OW)

🔒

Button	Signal	Description
*	🔊 🟠	Start programming
?	🔊 🟠	1st user ID (0-9)*
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	Enter 1st opening code*
*	🔊 🟠 🔊 🟠 🔊 🟠 🔊 🟠 🔊 🟠	Start opening delay
Opening delay active	🟠🕐8 sec🟠🕐 8 sec🟠	No code entry possible
End of opening delay	🔊 🟠 🔊🟠 🔊🟠	Start opening time window
Opening time window active	🔊 🟠🕐5 sec🔊 🕐 5 sec 🔊 🟠	Code entry required
*	🔊 🟠	Start 2nd code entry
?	🔊 🟠	2nd user ID (0-9)*
? ? ? ? ? ?	🔊 🟠 (after each press of a button)	Enter 2nd opening code*
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠 🔊 🟠 = ✔️ Open	🔊 🟠 = ✖️ Error
After 3 seconds	↻ Turn door handle	Open door

⚠️ *If you have activated code linking (dual control), the code entry must be in accordance with the code entry stipulated there.

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⚠️ The opening delay (OD) begins with the confirmation of the code entry. <u>Please do not enter any additional codes during the opening delay.</u> Any code entry or operation of the keypad will lead to an extension of the opening delay (OD).

⚠️ The ongoing opening delay can be seen from the repetitive blinking of the LED (every 8 seconds). During the opening delay, the lock will not react to any additional code entries. The end of the opening delay is indicated by one short and two long acoustic signals in conjunction with the LED. After the end of the opening delay, the opening code must be entered within the programmed opening time window. If this does not happen, the complete opening procedure must be repeated.
<u>The first and second opening codes must not be identical.</u> However, authorized user codes (0 to 9) must be used.

⚠️ The duration of the opening time window is indicated by a brief acoustic signal / LED every 5 seconds. If no opening code is entered, the end of the opening time window is signalled by the blinking of the LED 3x and a loud acoustic signal.

12. Monitor door contact / locking condition of the lock / automatic locking

An optional door sensor or additional bolt work switch must be installed in the cabinet to use this these functions (not included in the standard package). In its standard configuration, the lock is programmed for lock function without door monitoring (lock function 0).

If the switch is installed, the following functions can be programmed.

Function	Description
0	Lock function without door monitoring (preset from the factory)
1	Lock function with door monitoring (without automatic locking) (requires door sensor)
2	Lock function with door monitoring and automatic locking (requires door sensor and bolt work switch)

🔓 (with lock unlocked)

Button	Signal	Description
* 3 sec	🔊🟠 3 sec 🔊🟠 🔊🟠 🔊🟠	Start programming
0	🔊🟠	User ID (Master)
1 2 3 4 5 6	🔊🟠 (after each press of a button)	Master code
9	🔊🟠	Function selection
? (0 - 2)	🔊🟠	Enter function (table)
*	🔊🟠 🔊🟠 = ✔️ Changed	🔊🟠 = ✖️ Error

⚠️ The individual functions can <u>only</u> be activated / deactivated by the <u>master (user 0)</u>. The master code shown here is the preset factory code. Please use the current valid code.

⚠️ If it is determined during the locking process that the door sensor or the lock are not correctly closed, an error notification is given. The notification occurs after approximately 3 seconds in the form of an acoustic signal in conjunction with the illumination of the red LED, at an interval of 1 second.

To remedy the cause of the error, the signal display can be interrupted by pressing the $\boxed{\text{c}}$ button for 5 seconds. Within these 5 seconds, the lock can be opened by entering the code. If this is not done, the error indication will continue.

Note*:* The display only stops when the safe door or lock are correctly closed and reduces the useful life of the battery.

Note: If the function "Lock function with door monitoring" is activated and no door sensor is installed, an error notification always occurs when the lock is closed.

13. Power supply

13.1 Changing the battery

Power is supplied by a 9V block battery (Note: use only alkaline or lithium batteries). Depending upon the keypad type, the battery is either located in a separate battery compartment, which is installed on the interior of the safe door in the cover plate or embrasure of the door (12mm flat keypad), or in the keypad housing (keypad pro, 53mm protruding)

At the latest, the batteries should be changed when you see / hear several short acoustic signals and the illumination of the LED for approximately 3 seconds after opening the lock or after an operating procedure on the lock. Replace the battery as soon as possible (operational reliability is no longer guaranteed after approximately 10 further uses). You may also recognize a reduction in battery power through a reduction in signal strength (sound / LED brightness). Please pay attention to correct polarity when replacing the battery.

No settings or codes are lost when the battery is changed.

Replacing the battery with an internal battery compartment
Open the cover of the battery compartment and remove the battery. When installing the new battery, take care to use moderate pressure, so that the contacts are not bent.

Replacing the battery with an external battery compartment
Turn the keypad ring (front part of the fitting) counter clockwise until it stops (approximately 20°) and carefully pull it off. After replacing the battery, place the keypad ring onto the guide bolts again and turn it clockwise to secure it.
If the keypad ring is too easy or too difficult to turn, the two guide bolts can be adjusted by means of a hex key.

13.2 Emergency power

13.2.1 Internal battery compartment

If the battery level is too low and the safe is closed, proceed as follows.

1. Remove the keypad from its bracket by carefully lifting the keypad with a flat, blunt screwdriver placed under the edge of the panel between keys 4 and 7, between keys 6 and 9, and above the LED (see illustration).
   Pull the keypad out approximately 5 cm with both cables and lift the keypad.

2. Snap the new 9V battery into the two poles (large to small, small to large) on the back. For this, support the keypad with your fingers on the front between keys 0 and 8.

3. Now, proceed in accordance with the operating instructions, under the section entitled "Opening", and open the safe.

4. Open the battery compartment on the inside, carefully remove the new battery from the back of the keypad and use it to replace the depleted battery.

5. Push the keypad cables carefully back into the door and snap the keypad back into its bracket.

⚠️ Removing the keypad from the bracket can leave scratches on the bracket due to the screwdriver used. Please note that this is not covered by the warranty / guarantee and does not adversely affect the function of the lock. This is intentional and can provide you with indications of possible illegal tampering if you have not caused these scratches yourself.

13.2.2 External battery compartment

It is possible to supply emergency power as described above, but not necessary. In this case, please replace the battery.

14. Restart

When correcting malfunctions, it can be beneficial to restart the lock. For this, keep the ⓪ button pressed for at least 30 seconds and then release it. The restart is initiated with 2 acoustic signals in conjunction with the LED. After an additional 5-10 seconds, there will be a single blink of the LED, together with a beeping sound. The restart has now been concluded.

Button	Signal	Description
⓪ 30 sec*	🔊🟠 30 sec 🔊🟠🔊🟠	Restart initiated
🕐 10 sec*	🔊🟠	Restart concluded

*Reference value

Restarting the lock does not change any codes or delete other settings.

15. Signal table

Function	Short	Long	LED - red	Sound
General input functions				
Pressing numbers, C, and *-button	1x		x	x
Conclusion of a correct programming entry	2x		x	x
Conclusion of an incorrect programming entry		1x	x	x
Correct opening code entry (1 x LED and 1 x acoustic signal / LED)	1x		x	x
Incorrect opening code entry		1x	x	x
Beginning of programming (after holding the button down for 3, 6, 9, or 12 seconds)	3x		x	x
Beginning of super code entry (after holding the button down for 9 seconds)	3x		x	x
Time Out (time exceeded between 2 presses of buttons)		1x	x	x
General system monitoring functions				
Battery installed and lock activated*		1x	x	x
Battery almost depleted (after each opening or operation procedure, 8 times in approximately 3 seconds)	8x	1x	x	x
Opening / programming procedure incomplete / not concluded	1x		x	x
Conclusion of opening / closing procedure	1x		x	x
Motor mechanically blocked		2x	x	x
Beginning of automatic locking		1x	x	x
Lock bolt opens / closes (LED illuminates during movement)			x	
Lockout functions				
Start of lockout	1x	1x	x	x
Lockout ongoing (every 8 seconds for 5 minutes)	1x		x	
End of lockout	+	3x	x	x
Opening protocol output functions				
Output event	n+1x		x	x
Separator between 2 events		1x	x	x
End of event information		2x	x	x
Functions with activated door contact monitoring**				
Door not closed / lock locked (unlimited, every second))	n+1x		x	x
Lock not locked / door closed (unlimited, every second)	n+1x		x	x
Time functions				
Beginning of opening delay	2x	3x	x	x
Duration of opening delay in accordance with programmed time	every 8 seconds		x	
End of opening delay / beginning of opening time window	1x	2x	x	x
Duration of opening time window in accordance with programmed time	every 5 seconds		x	x
End of opening time window if no code is entered		3 x	x	x
Restart				
Beginning of restart	2x		x	x
Conclusion of restart	1x		x	x

* = After installing / replacing the battery
** = Signal sequence until error is corrected or battery is depleted

16. Troubleshooting / operating errors / blocking

If errors occur during the operation of your motorized lock, such as your lock no longer accepting codes, the lock not opening despite correct code entry, the lock not reprogramming, you get acoustic / LED signals that you cannot interpret, etc., please proceed as follows:

- Check whether your lock reacts to any pressing of buttons. If pressed buttons are not acknowledged by the illumination of the red LED and an acoustic signal or if this is very quiet / weak, attempt opening with emergency power supply. The charge level of the battery may be too low.

- Ensure that you have entered the correct code or programming data.
  ⚠ Note: Always enter the current code. The codes listed in the instructions are only the preset factory codes.

- You get acoustic / LED signals in rapid succession.

  - Check whether your lock is in lockout or door monitoring mode based on the table of signals. If so, proceed in accordance with the description in the operating instructions.

  - If you have activated door monitoring without connecting a door sensor, deactivate this function.

- The lock bolt does not lock completely.

  - Eliminate the cause for the <u>blocking</u> of the lock bolt. Blocking of the lock bolt is indicated by two long acoustic signals in conjunction with the illumination of the red LED after the locking of the lock bolt. If you hear this signal, eliminate the causes for the blocking (lock bolt must run freely, bolt work must function freely and easily, etc.).
  - After the indication of a blockage, the following lock functions are available:

    1. Open the lock by means of super / user code and
    2. Close the lock by pressing the ⊂ button

⚠ In general, we recommend consulting your dealer in case of problems / questions.

17. Technical data and certification

The lock is designed for indoor use.
Temperature 10°C – 40°C
Relative humidity 30% - 85%
No-load current < 0.1mA
Battery supply: 9V nominal (min. 6.5 Volt)
Battery type: 9V block type alkaline manganese or lithium, at least 500 mAh nominal capacity
The useful life of the battery under normal operation is approximately 2 years.
Lock class II (B), identification number M 120308
Tested on the basis of VdS 2344, VdS 2396, and EN 1300

CE UK CA

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a) Open with user code (0 – 9)*
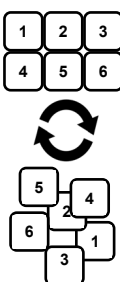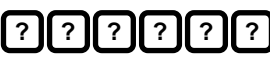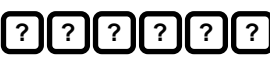
Button	Signal	Description
*	🔊 🟠	Start code entry
0	🔊 🟠	User ID (0-9)
1 2 3 4 5 6	🔊 🟠 (after each press of a button)	Enter opening code
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠 🔊 🟠 = ✔ Open	🔊 🟠 = ✖ Incorrect
After 3 seconds	↻ Turn door handle	Open door

*Examples based on the preset factory code

b) Close

Button / example	Signal	Description
Press door closed	↑̄	Door must rest solidly against the body of the safe
Completely lock door handle / bolt work	↻	Turn door handle 90°
C	🟠	Motorized bolt closes
Signal at the end of the locking procedure	🔊 🟠 = ✔ Locked	🔊 🟠 🔊 🟠 = Motorized bolt blocked

c) Change user code*

	Buttons / Description		Signal
1 2 3 4 5 6 🔄 5 4 6 1 3	🔓* [*] ⏱3sec 🔊 🔊 🔊 Keep button pressed approximately 3 seconds	⏱ 3sec	3 x 🟠 🔊 ✔
	0 1 2 3 4 5 6 Enter current user, incl. appropriate opening code 0 ? ? ? ? ? ? Enter new opening code * ? ? ? ? ? ? Repeat new opening code *		2 x 🟠 🔊 ✔ 1 x 🟠 🔊)) ✖

*It is only possible to change the code with the door open / example based on the preset factory code

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d) Open - super code*

Button	Signal	Description
🔲* 9sec	🔊 🟠 9sec 🔊 🟠 🔊 🟠 🔊 🟠	Start super code opening
1 1 1 1 1 1 1	🔊 🟠 (after each press of a button)	Enter current super code
Motorized bolt opens	🟠	LED illuminates during the opening procedure
Conclusion of opening procedure	🟠 🔊 🟠 = ✓ Open	🔊 🟠 = ✖ Error
After approximately 3 sec	↻ Turn door handle	Open door

*Examples based on the preset factory code

⚠️ Before using, please change all factory codes.
For this, please see complete instruction with all information regarding preset codes.

⚠️ Only turn the handle when the lock is completely unlocked (LED blinks 2x).
There should be at least 3 seconds between the entry of the code and the turning of the handle.

✖ Following an incorrect code entry, the opening process can be repeated three times. After the fourth incorrect entry, a lockout period of 5 minutes goes into effect (lockout). You will hear a brief acoustic signal every 8 seconds with the LED illuminated. Please avoid pressing any buttons during the lockout. This will lead to an extension of the lockout period.

A complete version of the instructions is available for download at the following link.

https://gst-tresore.de/zubehoer/schloesser/ml18-1-business.html