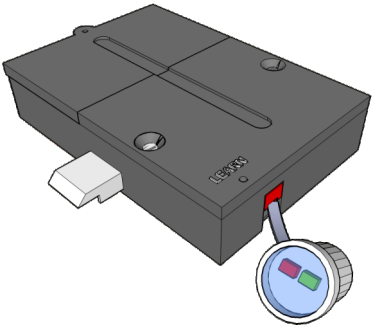
Operating Instructions Basic Module

M400 Wireless 2.4 GHz

Type: RXRF24M4



Contents

• Safety precautions •

- On changing the batteries, ensure correct battery polarity and position!
- Dispose of spent batteries in the proper manner!
- Do not heat the batteries, take them apart or short-circuit them!
- Never throw batteries into naked flames!
- The batteries must not be recharged!
- Keep the batteries out of children's reach!
- Any person swallowing batteries must seek immediate medical advice!
- Damaged and/or leaking batteries may lead to acid burns and/or poisoning!

• Advice on operation and care •

- Do not pour any liquids into or over any of the system's components and never immerse the components in liquids.
- Building structure, sources of electronic interference and / or interference from other frequencies may restrict transmission / reception range.
- The receiver should not be exposed to direct sunlight.
- Clean the system with a clean, soft, damp cloth only.
- Do not use any cleaning products containing abrasives or solvents, such as glass, thinner, alcohol, benzene or ammonia, as they may react adversely with the enclosure.
- Treating any of the electronic and mechanical components improperly or in a way other than described in this user manual may lead to malfunctions.

• General description •

The M400 electronic locking system is an accessory. It is intended for home and office use inside buildings.This user manual tells you how to operate the M400 system in the proper manner. Very easy to handle, the M400 system can be tailored to your specific needs. It can be upgraded from a stand-alone system to a complex and convenient locking system.Wording and graphics have been prepared for you with care. However, no liability will be assumed for any mistakes that may have occurred.
The scope of items included by the manufacturer in the system as well as technical specifications are subject to change without notice.

Functional description

The electronic locking system allows you to engage and release your furniture's locking mechanism from a distance with electronic convenience. It is intended for convenience and not for use as a central locking system (refer to the notes below). We advise you not to connect more than 10 furniture locks and one hand-held transmitter in a single lock system if all locks are to engage simultaneously. Specific access authorizations can be issued, in which case the signal is received and processed by all locks within the transmitter's range, thus ensuring that only authorized persons can access certain furniture items. Complete locking systems can thus be configured with different access levels. Each electronic control unit in the system works autonomously, without being connected by cable to other control electronics or the power supply system. Up to 50 different transmitters can be programmed without difficulty in each electronic control unit. Each transmitter is unique and carries an unmistakable code. A reset deletes all transmitter codes from the furniture lock. It is not possible to clear individual hand-held transmitters.

Please note the following points:

Due to the technology used, wireless signals are not restricted to the confines of a room and do not require a direct line of vision to trigger the desired activity. Commands can consequently also be transmitted over long distances and even through walls. However, wireless signals may also be impaired by structural conditions, electric fields and reflections. To ensure maximum safety and control, particular attention must be paid to the display unit on the furniture lock. It not only indicates and acknowledges the lock status, but will also inform you if the batteries are low or spent. If a feedback signal is not displayed on the furniture after actuating the hand-held transmitter, the locking command has not been detected correctly. For safety reasons, the lock will not respond in such a case. The command must be sent again.To operate the system, you will also need a LEHMANN wireless transmitter that is already in your possession or which you may purchase from your supplier or retailer.

NOTICE:

This device complies with Part 15 of the FCC Rules [and with RSS-210 of Industry Canada].
Operation is subject to the following two conditions:this device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

Changes or modifications made to this equipment not expressly approved by (Martin LEHMANN GmbH & Co.KG) may void the FCC authorization to operate this equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:Reorient or relocate the receiving antenna.Increase the separation between the equipment and receiver.Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
Consult the dealer or an experienced radio/TV technician for help.

NOTICE:

This Class [B] digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

Radiofrequency radiation exposure Information:

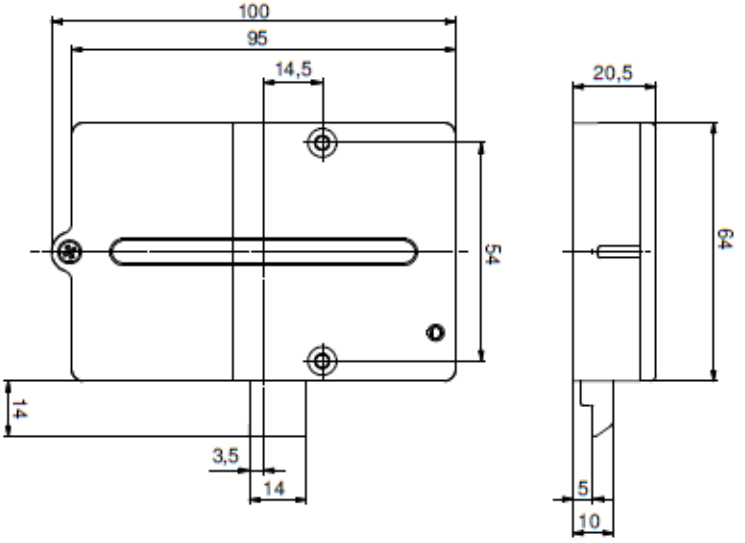
The radiated output power of the device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.

• Application / Installation / Assembly •

The M400 electronic furniture locking system must only be used for locking homes, home and office furniture. Using the system in applications for which it is not intended may result in irreparable damage to it and render any claims null and void.

The points below explain the principal steps of the installation procedure and must be followed when fitting the M400 system to furniture.

Before installing the system, insert the batteries into the control electronics and program your transmitter's access code. Connect the components and satisfy yourself that the system works correctly. Only install the system within an unlocked state. The indicator module should be installed in such a way that you are provided with a good line of vision. If you install the optoelectronics so that they are physically separated from the control electronics, the connecting cable between these system components must not exceed a length of 1 m. Please refer to the fitting instructions from the manufacturer of your furniture for the correct way to attach the M400 system to your furniture. LEHMANN supplies a wide range of accessories with which you can lock a variety of function units (doors, roller shutters, pull-outs etc.). If you have any questions concerning system installation, contact a firm of cabinetmakers or your supplier before commencing installation.



Note:

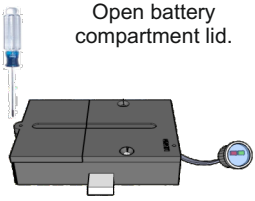
Our locks and locking systems can basically be used together with mechanisms made by other manufacturers, but their compatibility must be checked by the processor in each individual case.
We cannot accept any liability for damage or losses due to incompatibility.

• Getting started •

Before operating the system for the first time, insert the batteries into the electronic control unit and RESET the system.

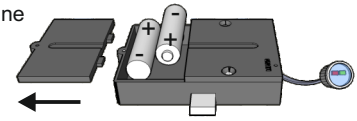
• Changing the batteries •

Undo screw.
Open battery compartment lid.



Change batteries.
Make sure they are fitted the right way round.

Battery type:
LR6, AA, alkaline

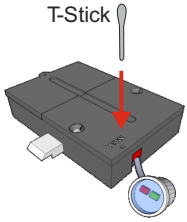


ATTENTION: NiCad, NiMH, zinc carbon, lithium batteries or other rechargeable batteries must not be used

• Perform system RESET •

Once the system has been correctly installed and the batteries inserted, the access codes can be programmed into the control electronics. For safety reasons, however, RESET the system before putting it into operation so as to clear any codes programmed during the quality assurance process. It is not possible to clear individual hand-held transmitters.

T-Stick



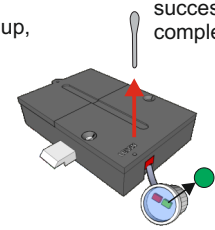
Insert T-stick in LEARN socket, press in and keep pressed.

Signals

GREEN signals light up, then flicker GREEN.
The indicator then goes out.

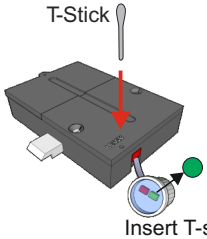
Remove T-Stick

System reset has been successfully completed.



• Teaching your hand-held transmitter •

T-Stick

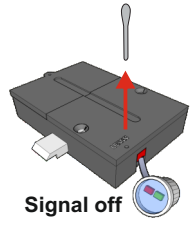


Insert T-stick into teach socket and press in for a moment or two.
Now remove T-stick again.
Green LED lights up.

Button 2
Open lock

Button 1
Engage lock

Briefly press button 1 or 2.
LEDs light up on held-held transmitter.

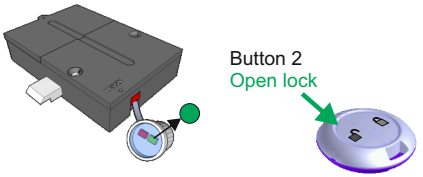


Signal off

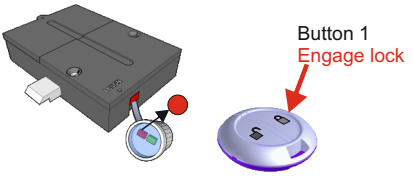
Signal goes out.
Hand-held transmitter is programmed.

Important note: After programming the system for the first time, further hand-held transmitters can only be programmed in the electronically locked state. The same applies to resetting the system as well as to clearing hand-held transmitters.

• Check for correct working order •



Briefly press button 2.
LED lights up green while
the motor is opening the lock.

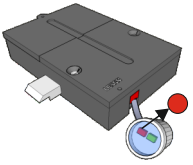


Briefly press button 1.
LED lights up red while
the motor is engaging the lock.

Electronics battery warning

The M400 has several battery warning levels (See table below).

Warning level	Indication on furniture lock´s optical system	Meaning	Effect
Level1	LED indicator flashes at regular intervals. Red twice briefly in succession	Low batteries. Batteries should be changed soon	Normal operation is still given.
Level 2	LED indicator flashes at regular intervals. Red three time briefly in succession	Batteries are flat. Batteries must be changed.	Each time the button is pressed in the hand-held transmitter, the lock now only carries out the "OPEN" command.



• Special function •

Switching over to automatic locking.
Pressing a combination of buttons on the hand-held transmitter, you can switch the furniture lock over to automatic locking.

1. Press and hold down both buttons on the hand-held transmitter.
2. The indicator begins to flash for a while.
3. When the indicator switches back to steady light, programming has been completed.
4. Now let both buttons go again.
5. Observe the sight signals on the furniture. If the signal flashes red / green, you have successfully switched over.

Indication at furniture optical system
Switch on automatic locking = Green LED permanently lit, red LED flashes.
Switch off automatic locking = Green LED flashes, red LED permanently lit.

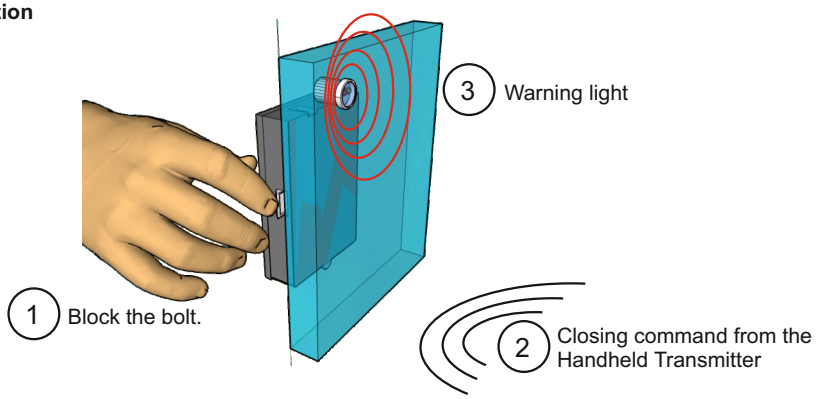
<u>Important note!</u>
All electronic units to which the hand-held transmitter is programmed will be switched to the same state.
Do not place your hand-held transmitter in the furniture when automatic locking is set.
If you wish to return to standard mode again, repeat steps 1-5.

The M400 locks automatically after approx. 1:50 minutes.

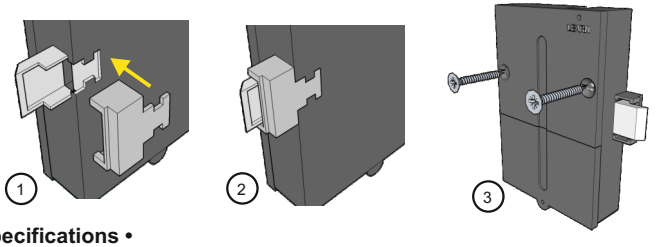
Monitoring of bolt position:

The M400 is equipped with a sensor that identifies when the bolt is fully extended in the end position. If the bolt fails to reach the end position in response to a locking command, a visual warning is given (red display LED flickers). If the bolt is already in the end position when a locking command is received, no additional locking cycle takes place. The spring-loaded mechanism allows you to close an open door even after the lock is engaged.

Test function



The M400 can be used with the included bolt protector extra protection against external mechanical manipulation. Depending on the use and application of the M400 we recommend this easy to use to assemble advanced protection



• Technical specifications •

The system is not restricted to the confines of a room. A direct line of sight between transmitter and receiver is not required. Frequency: wireless 2424.5 MHz. Modulation GFSK, simplex operation (unidirectional).
Be sure to observe national legislation on permissible wireless frequencies. Range: The transmission/reception range may be restricted by the structure of the building.
Reception is basically highly probable, but cannot be guaranteed on account of the simplex mode of operation. 50 hand-held transmitters can be programmed per electronic control unit. Further transmitters cannot be programmed and may necessitate a reset.
Power supply for electronic control unit: battery type 2x AA / LR 6 / mignon cells, alkaline 1.5V. NiCd, NiMH and other rechargeable batteries, as well as zinc-carbon or lithium batteries must not be used!
Temperature range:
- Operation = +5°C to +40°C at 30% to 80% relative air humidity, non-condensing.
- Storage = -25°C to +70°C at 30% to 80% relative air humidity, non-condensing.