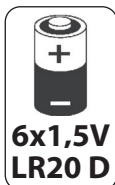
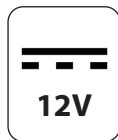


# ELECTRONIC MOTORIZED LOCK INSTALLATION AND USER MANUAL BT/L-M... BT/B-G...

# bNOVA



## GENERAL INSTRUCTIONS

This manual is intended for technically qualified and trained installers.

Mottura Serrature di Sicurezza S.p.A. thanks you for choosing this product and reminds you:

- To read these instructions very carefully before installing this product and before doing any maintenance.
- That all assembly and connection procedures must follow good practice procedures and comply with current laws and standards.
- To NOT install this product in explosive rooms or atmospheres or in the presence of inflammable fumes/gases.
- DO NOT install this product on a door with risk of contact with water or atmospheric agents unless the door is adequately protected.
- To switch off the power supply and disconnect all live parts before doing any installation or maintenance work on the product. To take all possible precautions to eliminate the risk of electrical shock when performing installation or maintenance procedures described in this manual.
- That the installer must deliver these instructions and all of the maintenance instructions to the user.
- To keep these instructions for future reference and attach the sales receipt to validate the warranty.
- To contact authorized dealers only in case of problems.

Mottura Serrature di Sicurezza S.p.A. may change the characteristics of the products described in these instructions at any time and without notice.

## WARRANTY TERMS

This product has been inspected by Mottura Serrature di Sicurezza S.p.A. and is guaranteed to be free of all manufacturing defects for the time specified by current Italian law, starting on the date of purchase indicated on the sales receipt. The warranty is in force if the sales receipt, showing details identifying the product, is exhibited to customer service personnel. The warranty covers the replacement or repair of parts found defective at origin due to manufacturing defects. Costs of shipping to and from service centres will be paid by the customer. In case of repeated malfunctions of the same type or unrepairable defects, Mottura Serrature di Sicurezza S.p.A. may, at its own discretion, replace the entire product.

The warranty on the replaced product will continue until expiration of the original warranty. If service work must be performed at the customer's premises, the customer shall – if requested – pay the authorised technical personnel travel expenses.

Risks related to product transportation shall be covered by the customer when shipped directly by the customer, and by the authorised technician when the product is picked up and shipped by the technician

## LIMITS OF LIABILITY

The warranty does not cover damage deriving from:

- Negligence, carelessness or use in any manner not described in these instructions
- Failure to protect the device before doing any procedure that may generate scrap or waste (welding, drilling of panels, drilling of structure, etc.) that prevents its correct functioning
- Maintenance performed in any manner not described in these instructions or by unauthorised personnel
- Transport without the necessary precautions and from any circumstances that cannot be attributed to manufacturing defects.

In addition, Mottura Serrature di Sicurezza S.p.A. declines all liability for any damage to persons or property deriving from failure to observe all of the precautions described herein.

**N.B. : All electrical connections and mounting operations as well as subsequent service operations must be performed with the product DISCONNECTED from the power supply system.**



safeguarding your security

MADE  
IN  
ITALY

## VERSIONS

B-NOVA BASIC BT/L-M... : Motorized lock for armored doors, rim version or with front plate.

B-NOVA BLUETOOTH BT/B-G... : Motorized lock for armored doors with Bluetooth connection, rim version or with front plate.



## WARNINGS

The device, if powered by batteries, contains Alkaline D (LR20).

The device contains a short-range radio frequency transmitter in the 2402÷2480 MHz frequency band and uses Bluetooth Low Energy (BLE) technology. Transmit power: 0dBm. Restrictions on use: None. The permitted European band is included in the ERC/REC 70-03 document as band b) of Annex 3: WIDEBAND DATA TRANSMISSION SYSTEMS. There are no restrictions for use in EU+EFTA countries for this band. Product compliant with the RED Directive 2014/53/EU.

**DoC completa:** <https://www.mottura.it/it/download/certificazioni/doc>



It is recommended to carry out the installation without the batteries on board and without the mains power cable connected, since if during the installation the lock were activated, even involuntarily, by rotating it could cause serious injury to the operator!



## POWER WARNINGS

The lock can be powered by the mains, using a 12 V DC power supply, or using 9 V batteries. Any electrical connection with the lock must be carried out without any power.



**MAINS POWER SUPPLY:** Mottura code 99.798, or equivalent, output voltage 12 V direct current, power not less than 40 W, current not less than 3A; the appliance must be CE marked and must compulsorily comply with current regulations regarding electromagnetic compatibility, electrical and environmental safety. The power and current indicated are necessary only for the correct functioning of the lock; in case of powering additional peripherals in combination with the lock, it will also be necessary to consider the relative absorbed power.

**BATTERY POWERED:** with six 1.5 V alkaline "D" type cells (non-rechargeable) for a total of 9 V, to be mounted on the door in an appropriate and convenient position for replacing the batteries.

**Do not use rechargeable batteries, they cannot be operated directly by the lock.**

## INSTALLATION WARNINGS

The vertical fixing position is binding for correct operation. Mounting and using the lock in different positions could compromise its correct functionality.

Protect the lock before carrying out any operation carried out on the door, which could generate waste material (welding, panel drilling, structure drilling, etc.) which, by entering inside the lock, prevents its correct functioning.



*Pursuant to article 26 of Italian Legislative Decree no. 49 of 14 March 2014 "Implementation of EU Directive 2012/19 concerning waste electrical and electronic equipment (WEEE)" and article 9 of Italian Legislative Decree no. 188 of 20 November 2008 "Implementation of EC Directive 2006/66 on batteries and accumulators and waste batteries and accumulators" adequate waste sorting for subsequent sending of disposed equipment to recycling, treatment and environmentally compatible disposal contributes to avoiding possible negative effects on the environment and human health and promotes reuse and/or recycling of the materials composing the equipment.*

*Unlawful disposal of the product by the user may result in the application of penalties pursuant to current laws and regulations on the matter. We remind that batteries and power adapters, if present, must be removed before the device is disposed. Batteries and adapters must be collected and separately disposed.*



## THE LOCK

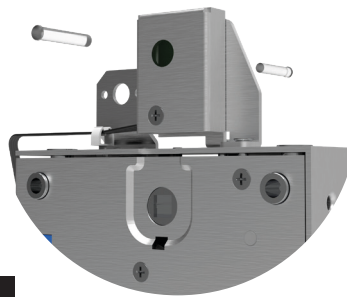
The factory setting of the lock is automatic closing when the door is closed. To open the lock, simply press the button on cable 99.802 as shown in the diagrams on page 6. After opening the door and receiving the appropriate signals that the maneuver has been completed, the lock is deactivated.

The lock closes automatically after closing the door and with the latch completely extended.



- 1 Status signaling LED e door status sensor
- 2 Access Dip-Switch (If +10 put cap on frame)
- 3 BLUE color insert Bluetooth module(Optional)
- 4 Typical cylinder fixing Mottura (see pag. 5)
- 5 Protection plate to manganese (Version with quick release)
- 6 Connectors (see pag. 6)

Art. **99B0001001** (OPTIONAL)  
Additional status LED for door panel with light guide.



## BASIC SIGNAL TABLE

! The signaling LEDs are located in correspondence with the door status sensor !

EVENT	LED SIGNALING
OPENING	Flashing GREEN LED
CLOSING	Flashing RED LED
LATCH OUTPUT WAITING	Flashing BLUE LED
LOW BATTERY	Flashing RED/GREEN LED + sound at the end of the manoeuvre
IMPOINTMENT	PURPLE LED + sound
FUNCTION SWITCHES ON	Flashing RED LED + sound
DOOR OPEN AFTER JAMMING	Flashing red LED + long intermittent sound
STANDARD CONNECTION CONDITION	BLUE LED flashing

## INSTALLATION

Fix the lock to the door structure using all the appropriate fixings: side attachments, bushings or mortise (Fig.1). The vertical fixing position is binding for correct operation. Mounting and using the lock in different positions could compromise its correct functionality. For the lock to function correctly, the latch must be able to come out freely without encountering friction whether the door is open or closed.

Provide, if necessary, holes in the door structure to accommodate the battery holder in a non-binding position, determined only by the length of the connection cables and the internal dimensions due to the configuration of the door (diverters, etc.). Drill the frame for the door status sensor. For these holes, refer to the assembly diagram shown in Fig.2. When assembling switchlocks, always ensure that there is clearance between the rod and the bar attachment both with the lock open and with the lock closed: this is to avoid creating direct tension on the motor which could damage its correct functioning. Secure, if applicable, the chosen battery holder and carry out the electrical connections as indicated in the following paragraphs.

Protect the lock before carrying out any operation carried out on the door, which could generate waste material (welding, panel drilling, structure drilling, etc.) which, by entering inside the lock, prevents its correct functioning. Do not insert the batteries into the battery holder until they have been secured to avoid short circuits which could damage the system.

**ATTENTION!** With the door completely assembled and all its positioning adjustments completed, carry out the first lock testing operations (opening/closing) in mechanical mode to check that there is no friction on the levers (rods/switchlocks) and on the key during rotation.

These problems could compromise the correct electronic functioning of the lock, causing irreversible anomalies. Mottura Serrature di Sicurezza S.p.A. declines any responsibility for failure to comply with this procedure, thus voiding any type of warranty on the product.

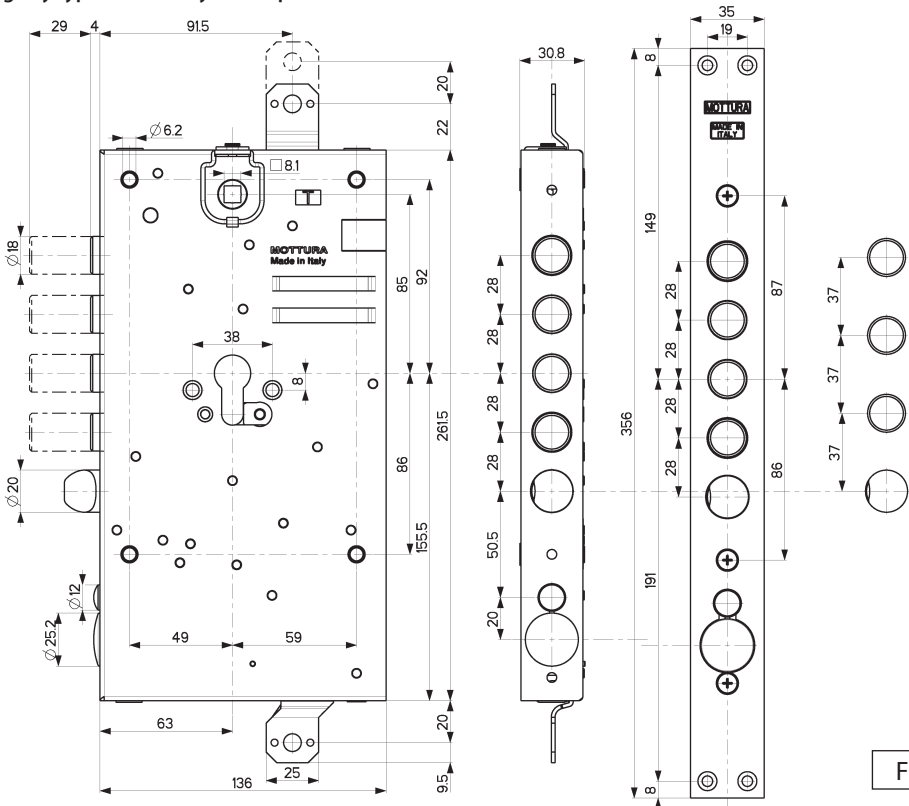


Fig. 1

## DRILLING DIAGRAM AND MAGNET DIMENSIONS

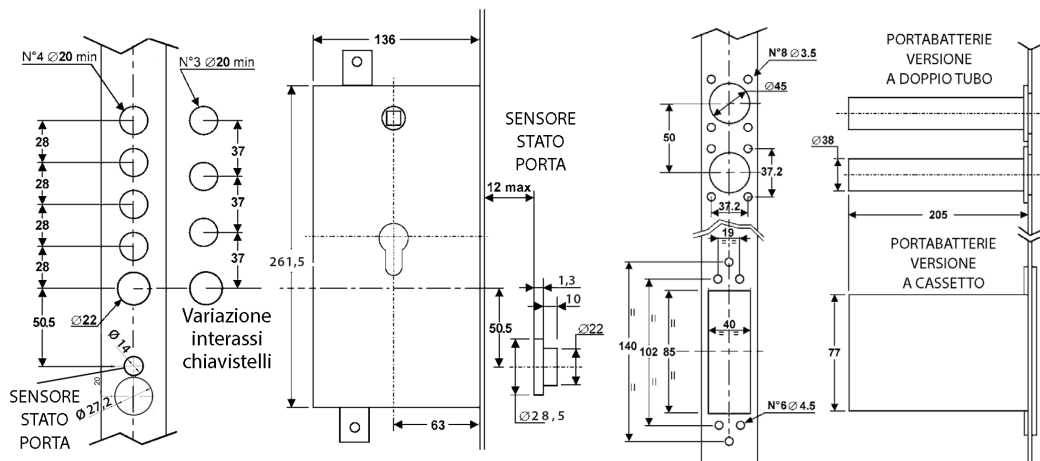
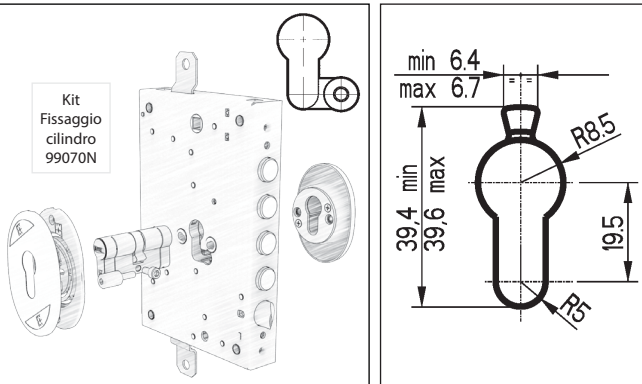


Fig. 2

## CYLINDER FIXING

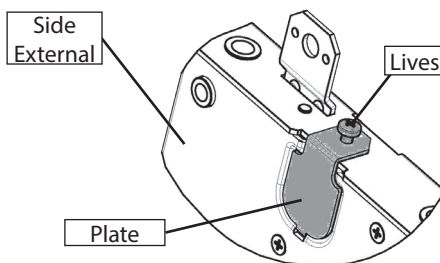
For good functioning of the lock, we recommend installing a double or half cylinder (depending on the application) with MOTTURA CHAMPIONS® Euro profile (DO NOT use cylinders with knob, as incorrect positioning of the knob can cause the motor to disengage and the failure of the lock). For better protection of the cylinder from the external side of the door, the use of MOTTURA DEFENDER® systems is recommended. To fix the cylinder only, use the components highlighted in the figure. For these items, not included in the package, consult the MOTTURA catalogues.



## QUICK RELEASE VERSION (CODICE BT.M/G...)

The quick release version of the lock provides for the opening of the bolts by operating the handle.

For correct installation, the protection plate must be fixed to the lock from the external side, centering it in the appropriate recess and tightening the M4 screw supplied.



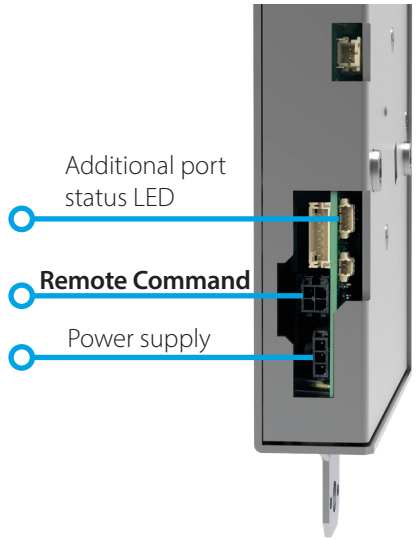
## CONNECTION OF CONTROL DEVICES

### REMOTE CONTROL

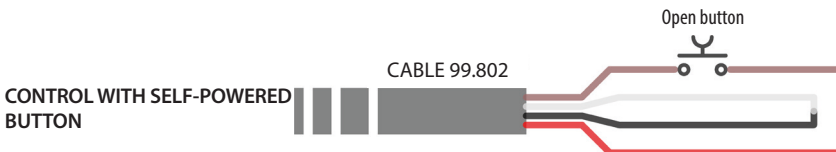
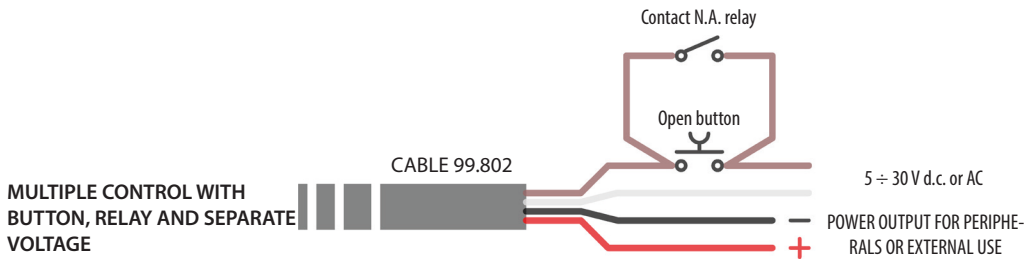
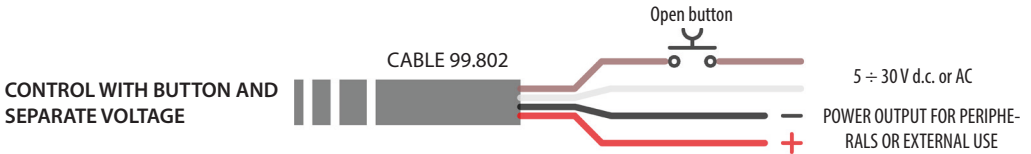
To open the lock using an external wired control, connect cable 99.802 to the appropriate four-pole connector. The cable is made up of 4 colored conductors:



From the red and black cables it is possible to take the same voltage coming from the lock's power source, protected from extra absorption by a 1 A fuse; this voltage can be useful for powering the remote control button or peripherals that use normally open relay contacts. **ATTENTION: these two conductors are NOT used to power the lock; you only need to draw electricity from them. Inserting voltages on these conductors can irreversibly damage the lock.** On the brown and white cables it is possible to send a voltage to command the opening of the lock. The voltage must be between 5 and 30 V, alternating or direct current: in the latter case the polarity must be respected, inserting the positive on the brown and the negative on the white; the polarity inversion does not cause damage but does not allow the lock to be opened.



### THE CABLE PART MUST BE CONNECTED ACCORDING TO THE FOLLOWING DIAGRAMS



## POWER SUPPLY

Before supplying power and/or placing the batteries in their slots, make all the connections and make sure you have not made any wiring errors.



Depending on the type of need, the B-NOVA lock can offer 2 different power options:

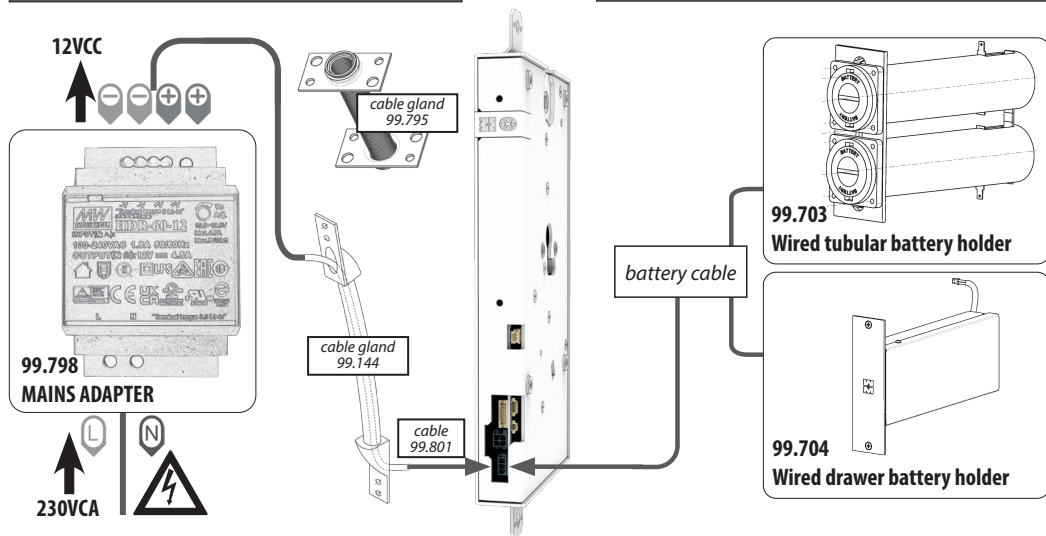
**MAINS POWER SUPPLY**  
(WITH TRANSFORMER)

**ALKALINE BATTERIES**  
(NOT RECHARGEABLE)

**N.B. The lock cannot be powered with both types connected together**

### WIRING MAINS version

### WIRING BATTERY version



### ATTENTION

IF THE LOCK IS ONLY MAINS POWERED (WITHOUT BUFFER BATTERY), IN THE EVENT OF A POWER INTERRUPTION, THE PERIPHERALS (B-KEY, B-DIGIT, B-TRACK), IN WHICH A TIME CONTROL HAS BEEN SET, WILL LOSE THE TIME AND CONSEQUENTLY THEY WILL NOT UNLOCK THE LOCK.  
THE OPERATION OF THESE PERIPHERALS MUST BE RESTORED VIA THE "MASTER" TELEPHONE.



## MAINS POWER SUPPLY INSTALLATION (99.798)

*Have the connections made by competent technical personnel in compliance with current regulations on electrical safety and according to the rules of good practice.*

The power supply must be placed near the door and outside it; the cable 99.801 must be passed through a cable gland of suitable size (Mottura 99.144 or equivalent).

The cable length is 4 m; it is not recommended to use longer cables or make splices. If these operations are absolutely essential, it is advisable not to exceed the length and to use a section of no less than 1.5 mm<sup>2</sup>. A cable length greater than 4 m or inappropriate joints could cause the lock to malfunction in the event of strain during manoeuvres.

## ELECTRICAL CONNECTION MAINS ADAPTER

The unheaded part of the cable 99.801 must be connected to the output screw terminal block, marked -V and +V, of the power supply 99.798 (or equivalent), respecting the polarity: red = positive, black = negative.

The 230 V domestic network must be connected to the input terminal block of the power supply using standard conductors of suitable characteristics, dimensions and colours, in the absence of voltage. The mains input must also be protected by specific devices, complying with current regulations on electrical safety.

<b>POWER INPUT</b>	<b>VOLTAGE / FREQUENCY</b>	100 ÷ 240 Vac 1,8 A max 50/60 Hz
	<b>WORKING TEMPERATURE</b>	Min -30 °C ÷ Max.+70 °C
<b>POWER OUTPUT</b>	<b>ELECTRIC VOLTAGE</b>	12 Vdc 4,5 A max
	<b>POWER</b>	54W
<b>MECHANICS</b>	<b>WEIGHT</b>	190 g
	<b>DIMENSIONS</b>	(L x P x H) 53 x 94 x 60 mm
<b>IMPORTANT</b>	Always protect the input (electrical system side) with a fuse or magnetic switch of adequate capacity. To prevent cases of overheating or fire, always use cables of adequate cross-section.	

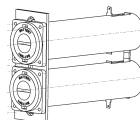
## MECHANICAL FIXING

You can hook the box onto a DIN EN 60715 rail (not supplied) and snap it into place (black hook facing downwards). To unlock it, simply pull the black hook downwards using a flat-blade screwdriver.

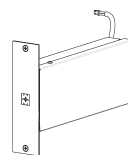


## CONNECTION VIA BATTERIES

To power the battery lock, insert the battery drawer cable 99.704 into the appropriate three-pole connector. The battery drawer must be placed inside the door (see diagram on page 5). The cable length is 1.8m; it is not advisable to use longer cables or make splices.



Art. 99.703



Art. 99.704

## USE AND MAINTENANCE INSTRUCTIONS / USER MANUAL

### DEVICE MANAGEMENT VIA B-MOTTURA APP

To manage this device, the use of the B-MOTTURA APP will be necessary. All programming and management of Mottura B-Technology BLE products is controlled directly via the Mottura application, with guided procedures during the various steps of programming the new devices. ACCESS CONTROL management is integrated within the App.



scan the qr code to download the app

### 1 - SETTING OF THE LOCK VIA SWITCH

On the front of the lock, under the door status sensor, there is a black plastic cap, under which there is a series of "dip-switches" that give access to some advanced functions.

#### ! ATTENTION !

TO ACTIVATE THE ADVANCED FUNCTIONS USING SWITCHES, THE LOCK AND DOOR MUST BE OPEN.

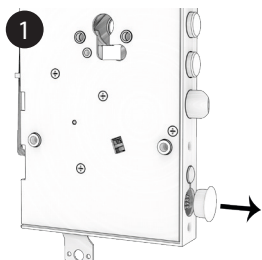
Maximum attention must be paid to ensure that removing the cap does not cause damage to the switches and/or any other part located underneath it; also pay maximum attention to avoid the risk of injury to yourself or other people.



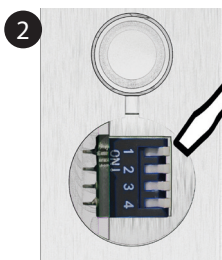
## 1.1 CHANGE OF OPERATING MODE VIA SWITCH

### !ATTENTION!

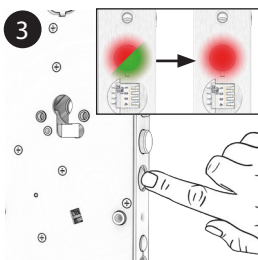
This function is only for B-NOVA BASE version. In the Bluetooth version, programming will be managed solely by the dedicated APP, via smartphone.



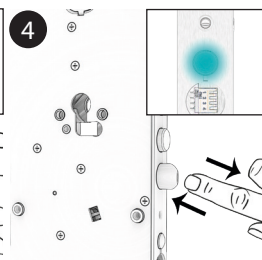
1 Remove the cap to access the Dip-Switches.



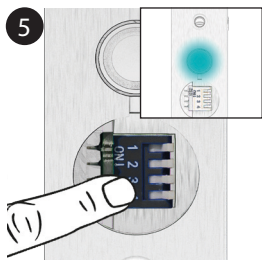
2 Move switch number 3 to ON



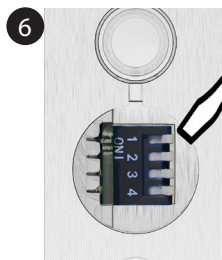
3 Keep the latch pressed until you hear a beep (about 5 seconds) and a solid red light.



4 Release the latch and press again to confirm the operation (within max 5 sec.).

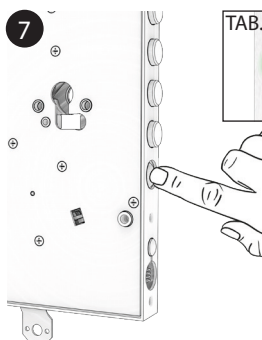


5 Return all Dip-Switches to OFF (as per operating mode)

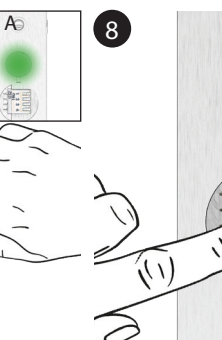


6 Move the affected switch to ON (See functions Table A)

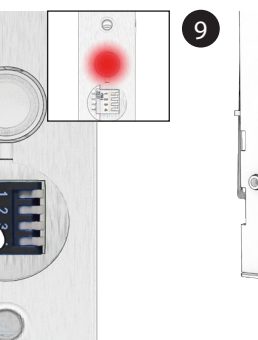
TABLE A		
CHANGE OF LOCK OPERATION MODE	N° SWITCH (to ON)	flashing LED*
Auto lock (default)	2	x1
Manual Opening/Closing	3	x2
Stop day (latch opening only)	2 + 3	x3
Manual opening/closing without latch opening	4	x4
Automatic closing without latch opening	2+4	x5



7 Press and hold the latch until you hear the beep and Green LED (Tab A\*)



8 Return all Dip-Switches to OFF (as per operating mode)



9 Insert the cover cap.

N.B. Failure to move to "OFF" will be signaled, even in the event of the lock being operated: opening will be carried out after two signals, closing will NOT be carried out and a continuous signal will be issued.

## 1.2 ADVANCED FUNCTION SETTING VIA SWITCH

**TABLE B**

FUNCTIONS	N° SWITCH (to ON)	Basic version	Bluetooth version
(1) Sensor tests	2	✓	With APP
Audible Alerts ON	4	✓	With APP
Audible Alerts OFF	2 + 3	✓	With APP
(2) Cycles quantity	2 + 4	✓	With APP
(3) General Reset	2 + 3 + 4	✓	✓

### Description of functions (tab.B)

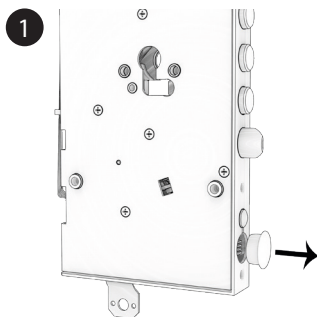
(1) The lock starts to move the bolts and the latch, controlling 6 internal sensors and the door sensor, indicating the sensor is working with the GREEN LED and the sensor is not working with the RED LED.

(2) The lock emits a series of "PURPLE" LED flashes with an interval of 1 second. Each flash corresponds to 10,000 cycles performed. Value cannot be reset.

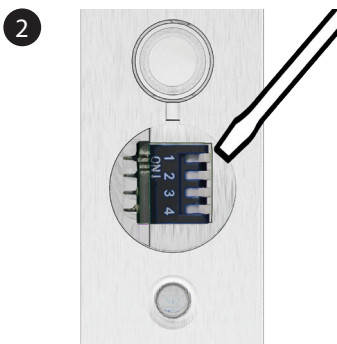
(3) Restoring factory settings.

### ! ATTENTION !

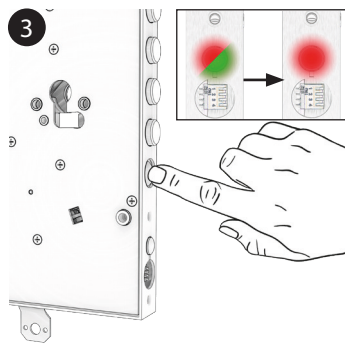
TO ACTIVATE THE ADVANCED FUNCTIONS USING SWITCHES, THE LOCK AND DOOR MUST BE OPEN.



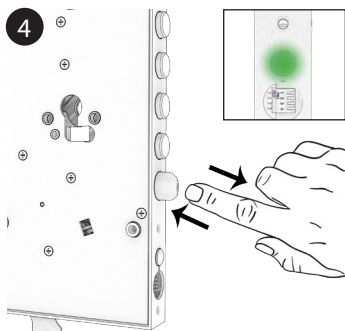
1 Remove the cap to access the Dip-Switches.



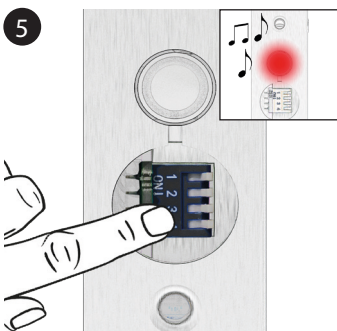
2 Move the affected number to ON (See functions on Table B)



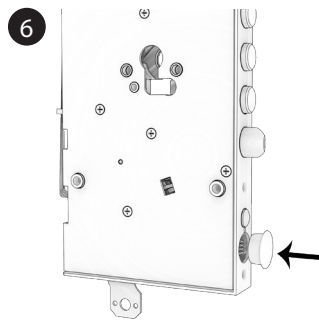
3 Keep the latch pressed until you hear a beep (about 5 seconds) and a solid red light.



4 Release the latch and press again to confirm the operation (within max 5 sec.).



5 Return all Dip-Switches to OFF (as per operating mode)



6 Insert the cover cap.

**N.B. Failure to move to "OFF" will be signaled, even in the event of the lock being operated: opening will be carried out after two signals, closing will NOT be carried out and a continuous signal will be issued.**

## 2 - POWER SUPPLY

### MAINS POWER SUPPLY

If a MAINS power supply is used, it is necessary to use an adapter/transformer sized for the use for which it was intended. The MOTTURA adapter (optional art. 99.798 with cable art. 99.801) was subjected to the necessary tests, together with the lock itself, in order to obtain certifications according to the current regulations regarding immunity to electrical and electromagnetic disturbances, as well as for emissions to the electricity grid and to the environment.

### POWER SUPPLY VIA BATTERIES

The life of a battery pack, in conditions of normal use and referring only to the lock's power supply, is approximately 25,000 operations, where each operation includes opening and closing. However, battery life can be influenced by the type of use and by various external factors, even independent of the functioning of the lock. Humidity, extreme temperatures and intensive use are certainly causes of premature discharge of the battery pack.

Connecting other devices or peripherals to the lock will increase consumption, and therefore may cause a reduction in battery life.

When the discharge level of the batteries begins to be such as not to allow correct functioning of the lock, a signal will be issued during the manoeuvres: functioning can still be guaranteed for a fair number of operations, but it will be necessary to replace them as soon as possible.

To replace the batteries, follow the procedure based on the item installed; all the cells must be replaced together, with the same type and brand, respecting the polarity: any inversions will cause overheating and risk of explosion.

**Failure to replace the batteries can also cause the formation and leakage of oxide and corrosive liquids, which are highly harmful to the battery holder, connections and port. Never use rechargeable batteries. By doing so, the functioning of the lock would be compromised.**

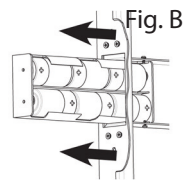
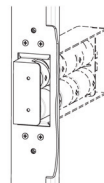
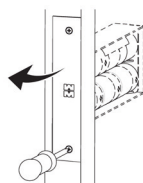
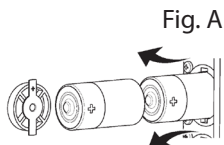
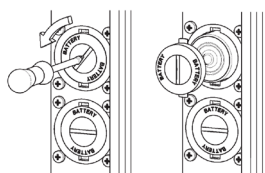
**!ATTENTION!: Exhausted batteries are harmful to the environment, follow the disposal procedure as indicated by the regulations on PAGE 2**

#### 2.1 DOUBLE TUBE VERSION (Art. 99.703) Fig.A

To replace the batteries it is necessary, with the door open, to insert a suitably proportioned flat screwdriver (or a coin) into the appropriate notches of the two covers and, using light pressure, rotate them anti-clockwise until they come out as shown in the figure. Remove the batteries (3 for each tube); if the innermost battery does not come out, use the same screwdriver used previously to lightly press the battery and release it quickly to allow the spring, which presses on the rear part of the battery, to completely expel it from its seat. Replace the batteries by inserting them with the negative side (-) facing in the direction of insertion, leaving the positive side (+) facing the cover as visible on it. Once inserted, close with the covers in reverse order to what was previously described.

#### 2.2 DRAWER VERSION (Art. 99.704) Fig.B

To replace the batteries it is necessary, with the door open, to loosen the screws on the front of the battery holder with a screwdriver, completely unscrew both screws by removing the front cover, until the battery drawer is freed as shown in the figure. Pull out the drawer as far as it will go, which prevents it from coming out completely, then proceed with replacing the batteries respecting the correct position as indicated on the bottom of the drawer itself. Once inserted, place the drawer back in its seat, reposition the front plate by screwing in the fixing screws.



### 3 - NOTES ON THE USE OF THE CYLINDER

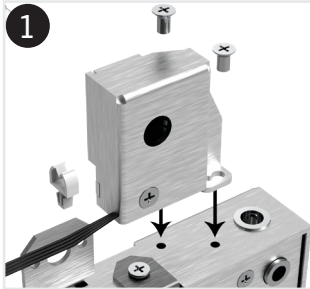
Its use was designed to make up for situations in which there is a lack of electrical power or any malfunctions of the electronic part. It is therefore preferable not to use it under normal operating conditions. It must never be operated during the phases in which the electric motor of the lock is working (opening/closing).

**IMPORTANT:** If the cylinder is present, the mechanical key can always be used to open/close both from the outside and from the inside. If, despite all the checks, the lock still shows anomalies, it is always advisable to contact the technical assistance service, or request the intervention of a specialized technician from an authorized Mottura centre. It is in no way advisable to carry out technical interventions on the product yourself, without the necessary knowledge of its component parts. Please remember that repairs or maintenance carried out by unauthorized personnel, in addition to immediately voiding any type of warranty, may cause irreversible damage to the entire mechanical and/or electronic system. Even more so, on mains powered versions (230 Vac), given the greater danger, it is essential to request the intervention of qualified and authorized personnel to work on electrical systems, who must comply with all current regulations regarding electrical safety.

Mottura Serrature di Sicurezza S.p.A. declines all responsibility for any type of malfunction, anomaly and damage to people or things due to failure to comply with the previous rules.

### 4 - ADDITIONAL LED INSTALLATION (OPTIONAL)

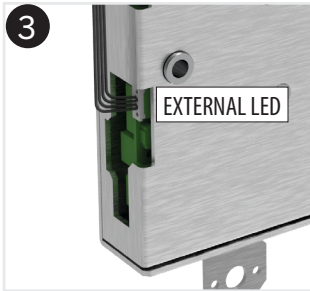
Art. 99B0001001



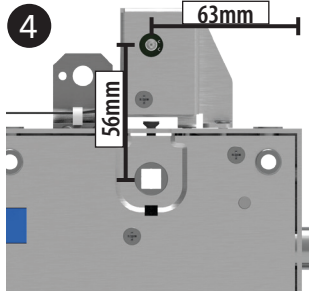
1 Fix the LED using the 2 screws



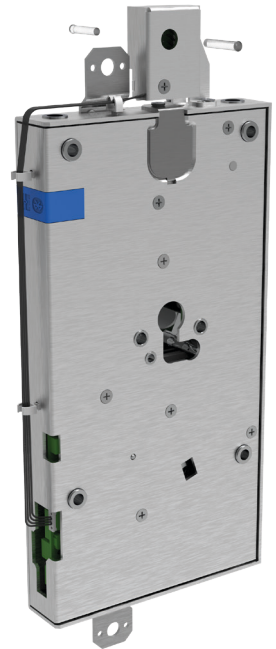
2 Attach the 3 cable holders



3 Insert the connector into the appropriate input (External Led)  
Page 6



4 LED position quotas



For correct disposal, check the provisions of your municipality

PACKAGING DISPOSAL			
20 PAP	22 PAP	6 PS	04 LDPE
External packaging PAPER	Paper documents PAPER	Internal polystyrene pack PLASTIC	Inner envelopes PLASTIC



safeguarding your security

COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
ISO 9001•ISO 45001