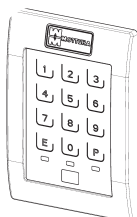
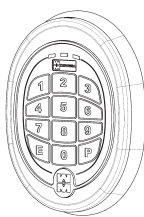
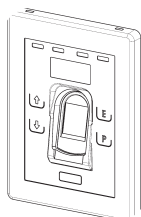
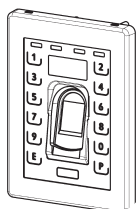
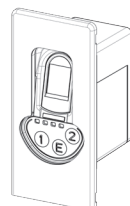
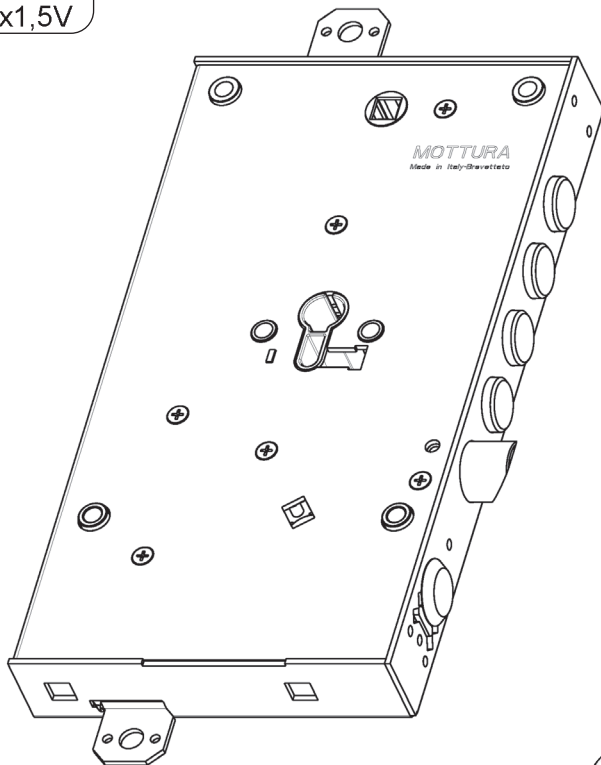
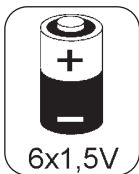
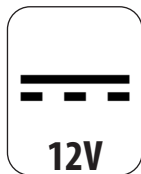


POWERED ELECTRONIC LOCK
TECHNICAL DATA and INSTRUCTIONS
XT.L01.../L21.../S01.../S21...



MADE
IN
ITALY



safeguarding your security

1 - GENERAL INSTRUCTIONS

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

- read the instructions very carefully before installing the device or doing any maintenance work on the product.
- All assembly and connection procedures must be done according to the Rules of Good Practice as well as in conformity to current law. DO NOT install this product in explosive environments or atmospheres or in the presence of flammable fumes/gases.
- Do not install the product on doors with risk of contact with water or atmospheric agents unless adequately protected.
- Always switch off the power supply and disconnect all live parts before doing any installation or maintenance work on the product. Take all possible precautions to eliminate the risk of electrical shock when doing the installation or maintenance procedures described in this manual.
- The installer must give these instructions and all of the maintenance instructions to the user.
- Keep these instructions for future use and attach the sales receipt to validate the warranty.
- In case of problems contact authorized dealers only.

This manual explains how to connect the lock according to a logical-functional sequence. First connect all of the selected peripherals and then the power supply:

1. Connecting the control units (allow control of the lock)
2. Connecting the power supplies.

If you have to disconnect the wires, do the above steps in the reverse order, i.e., always disconnect the power supplies first. Mottura Serrature di Sicurezza S.p.A. may change the characteristics of the products described in these instructions at any time and without notice.

1.1 - WARRANTY TERMS

This product has been inspected by Mottura Serrature di Sicurezza S.p.A. and is guaranteed against 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 centers 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 complete product. The warranty on the replaced product will continue until expiration of the original warranty.

If work is necessary at the customer's home, the customer will be required to pay a charge for the costs of transfer of authorized technical personnel. Transport will be at the customer's risk if the product is sent by the customer and at the authorized technician's risk if the product is picked up and transported by the technician.

1.2 - LIMITS OF LIABILITY

The warranty does not cover damage due to:

- negligence, carelessness or use in any manner not described in these instructions
- lack of protection of the lock prior to carrying out any work operations on the door, such as drilling or welding (welds, panel holes, structure holes, etc.), which may generate waste materials that will hinder the correct operation of the lock upon entering its mechanism
- maintenance performed in any manner not described in these instructions or by unauthorized personnel
- use of non-original accessories/components Mottura
- transport without the necessary precautions and from any circumstances that cannot be attributed to manufacturing defects.

Work temperature: -10 °C to +55 °C. The batteries guarantee correct operation of the product in the specified temperature range. If such temperature extremes are approached or exceeded, battery performance may decrease rapidly, with possible malfunction of the electrical part. In case of extremely low temperatures, it is advisable to power the device from the mains by using the 230/12 V transformer.

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. Mechanical lock operation is guaranteed even when the electronics of the lock has no anomaly. This excludes any electronic safety level. Mechanical keys should therefore only be used by the owner and/or by extremely trustworthy persons.

2 - INSTALLATION

Fix the lock to the door structure by using all of the fasteners: side attachments (A), bushings (B) or mortise-type (C) (Fig. 1). In order to work correctly, the lock should be fixed in a vertical position. The lock may not work properly if installed or used in a different position. For correct operation of the lock, the spring latch must be able to protrude freely without frictioning when the door is open or closed.

If necessary, drill spaces in the door structure to hold the battery pack in a non-binding position defined only by the length of the wires and by internal dimensions due to door configuration (switchlocks, etc.). Drill the frame for the door status sensor. For these drillings, see the attached mounting diagram in Fig. 2. If you are mounting switchlocks, always provide sufficient clearance between the bar and the upper and lower tabs both when the lock is open and when it is closed, so as to prevent strain that could damage the motor. Fasten the battery pack, if required, and wire as shown in the next paragraphs.

Protect the lock before doing any work on the door that could produce waste material (soldering, drilling of panels, drilling of structure, etc.) that might enter the lock and impair its functioning. Do not insert the batteries into the battery holder until finished fixing to avoid short circuits that may damage the system.

WARNING! When the door is completely mounted and perfectly positioned, run the first checks on the lock (opening/closing) in mechanical mode to make sure there is no frictioning on the levers (bars/switchlocks) or on the key when turning.

These problems could impair correct electronic operation of the lock and cause permanent malfunction. Mottura Serrature di Sicurezza S.p.A. declines all liability if this procedure is not performed and, in such case, all warranties on the product will lapse. If a mains powered connection is provided, it is advisable to use grommet 99.144 or 99.795 (not included) between fixed upright and leaf, attaching it as shown in the instructions attached to the grommet pack.

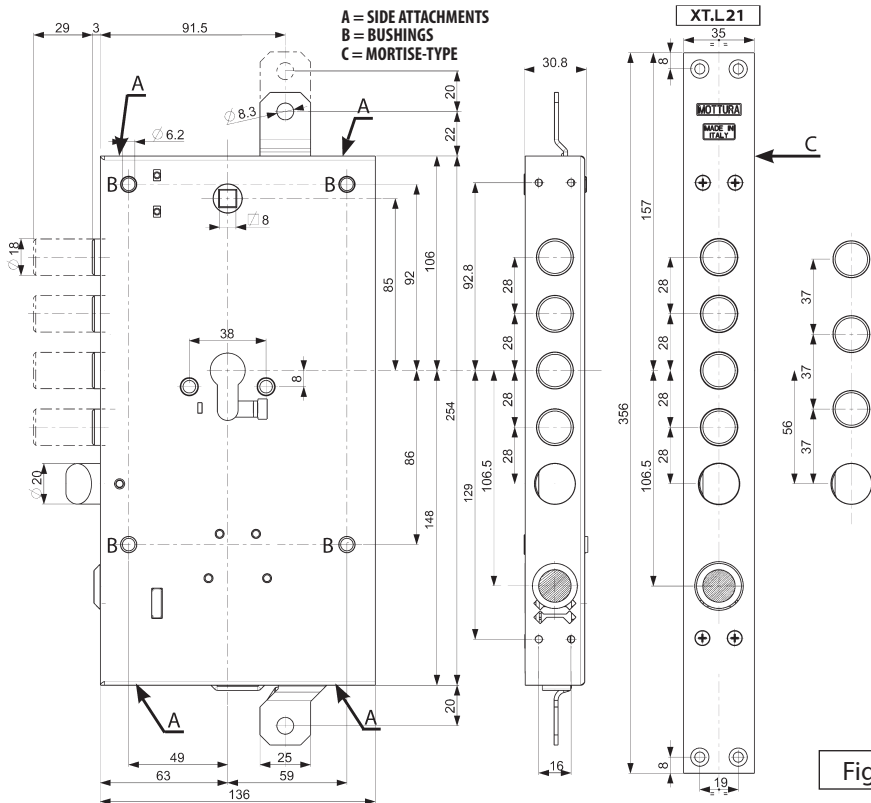


Fig. 1

2.1 - DRILLING DIAGRAM (CHANGEABLE POSITIONS) AND DIMENSIONS

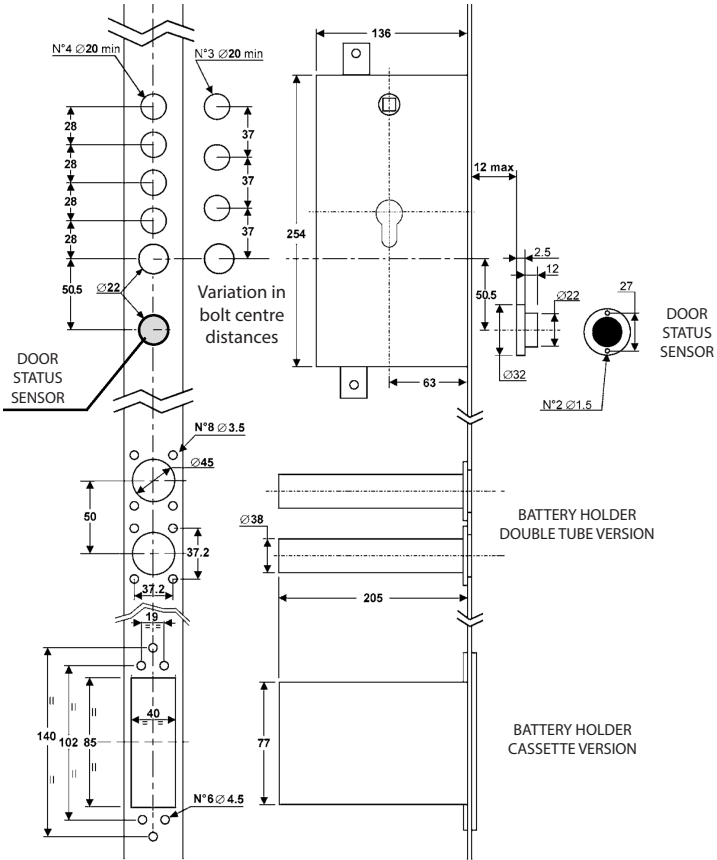


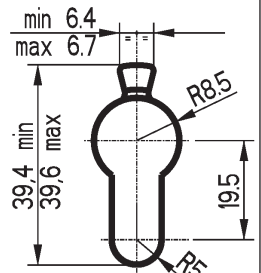
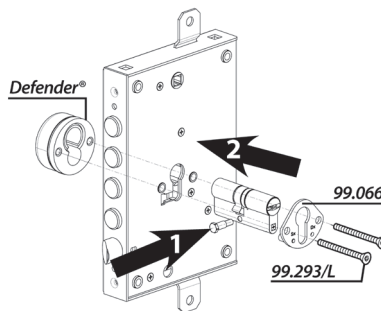
Fig. 2

2.2 - CYLINDER FIXING

For proper functioning of the lock, we recommend installation of a MOTTURA CHAMPIONS® double or half Europrofile cylinder (according to application).

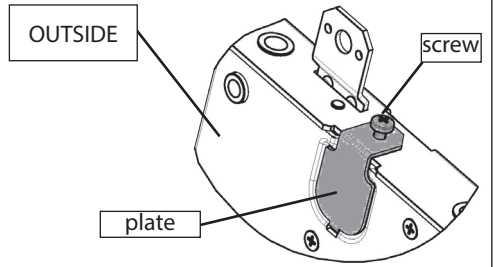
DO NOT use cylinders with knobs.

For better protection of the cylinder from the outer side of the door, we recommend the use of MOTTURA DEFENDER® systems. For these articles (not included in the pack), please see MOTTURA catalogs. Alternatively use European cylinder with the dimension shown in the diagram.



2.3 - VERSION QUICK RELEASE (CODE XT.S...)

The version of the quick release lock provides the opening of the bolts by means of the handle.
For proper installation, the locking plate must be secured to the lock on the outside, centered on the lower base and fasten the supplied screw M4.



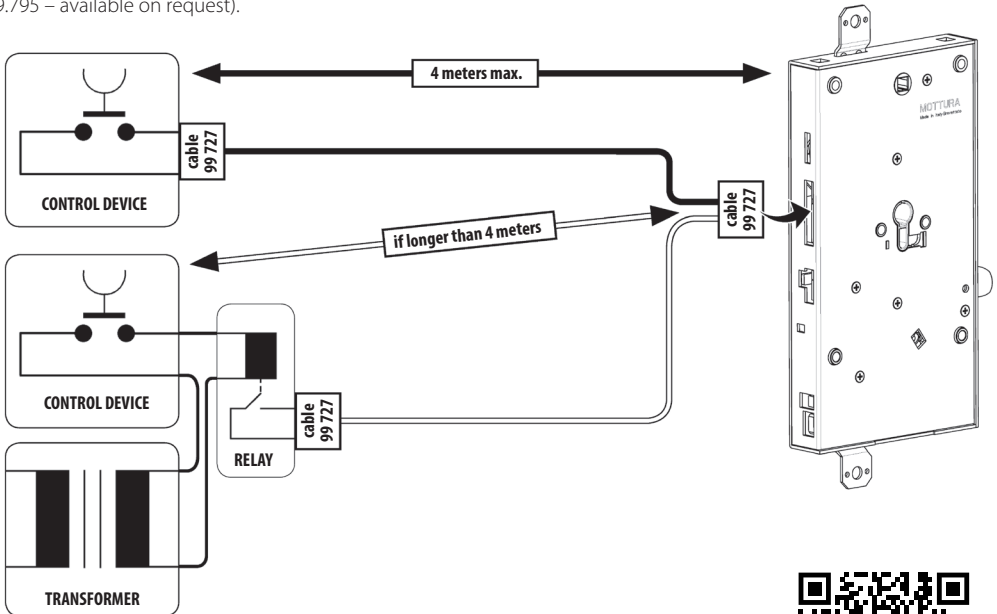
3 - CONNECTING CONTROL DEVICES

You can operate the lock with a "Normally Open" button or with a device fit with a "Normally Open" voltage-free dry contact (not supplied) to be connected to the lock by means of the 10 cores cable 99.727 (supplied). Closing this contact for an interval from 0.5 to 2.0 seconds results in the lock operating.

Connect cable 99.727 to the lock as shown on the following diagrams, using only two of the ten cores available: the purple one and the white one.

DO NOT connect the cable 99.727 using the other cores with color different from purple and white!

If the remote opening button/device is located more than 4 meters away from the lock, install a relay (not supplied) between the door and the device, with the coil connected to the remote control and the "Common" and "Normally Open" contacts of the relay connected to the lock with cable 99.727. The cable has to run through a grommet (Art. 99.144 or 99.795 – available on request).

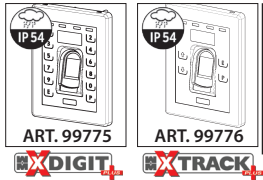
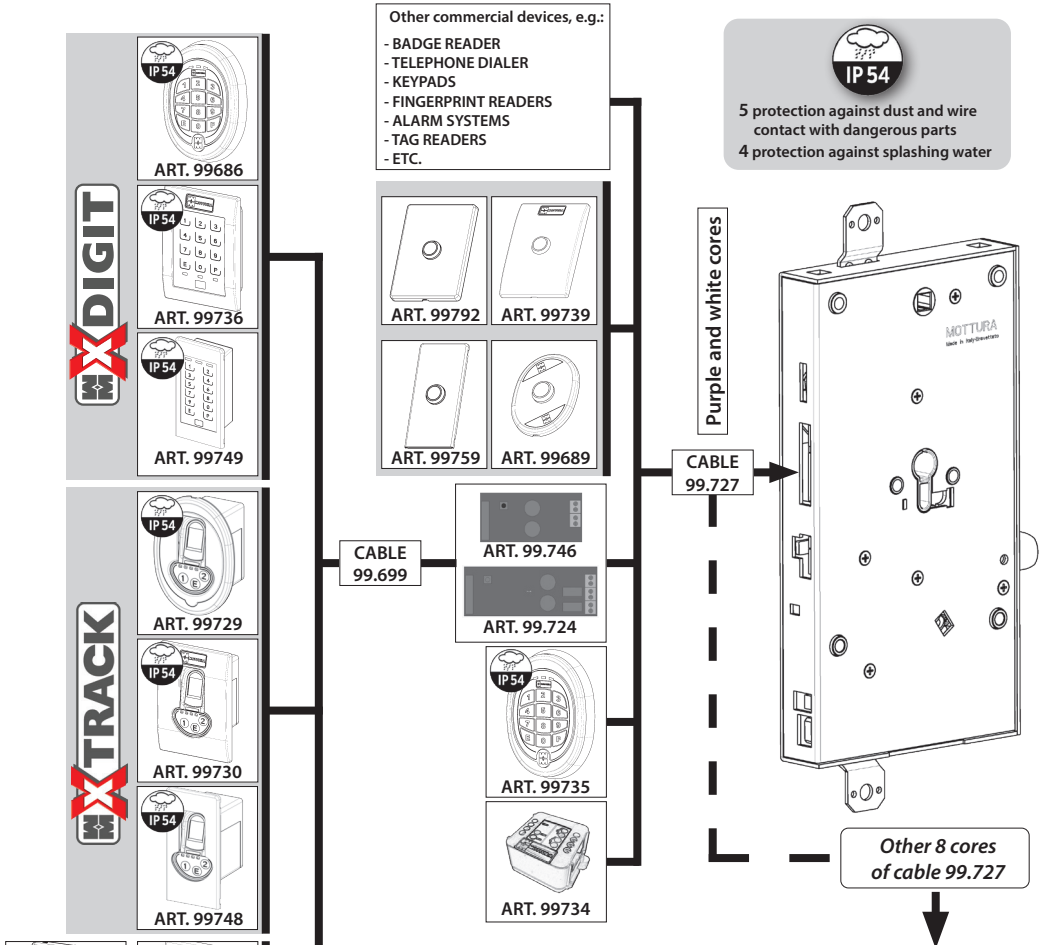


To use the other eight colored cores, refer to the instructions for the dry contact cable that can be downloaded directly from the site at the following link: https://www.mottura.it/pdf_mottura_web/pdf_manuali/GB/Xnova_drycontact_functions.pdf or via QRCode on the side.

3.1 - GENERIC DEVICES (DRY CONTACT)

You can operate and control the lock with several devices, all connected in parallel to each other. Devices must be connected to the lock by means of the 10 cores cable 99.727 **using only the purple and the white cores**.

To connect Mottura device, place the relay 99.724 or 99.746 between the lock and the device. See the installation manual supplied with the single control unit for information on its connection and use. Some devices are tested with IP54 protection grade.



N.B. In the drawing it's not shown the power supply of the generic devices: refer to their specific manual

PIN	COLOR	DESCRIPTION
1	White	GND
2	Brown	INPUT2 - Close
3	Green	V internal (battery voltage or 9,5 Vmax from mains)
4	Yellow	INPUT1 - Open
5	Gray	OUTPUT3 - Door state
6	Pink	OUTPUT5 - Low battery
7	Blue	OUTPUT4 - Error
8	Red	OUTPUT1 - Latchbolt state
9	Black	OUTPUT2 - Latches state
10	Purple	INPUT3 - Opening followed by automatic closing

4 - CONNECTING THE POWER SUPPLY

Depending on the type of need, the XNOVA lock offers a number of options based on the type of power supply chosen for the system.

POWER SUPPLY SYSTEM (with dedicated optional accessories):

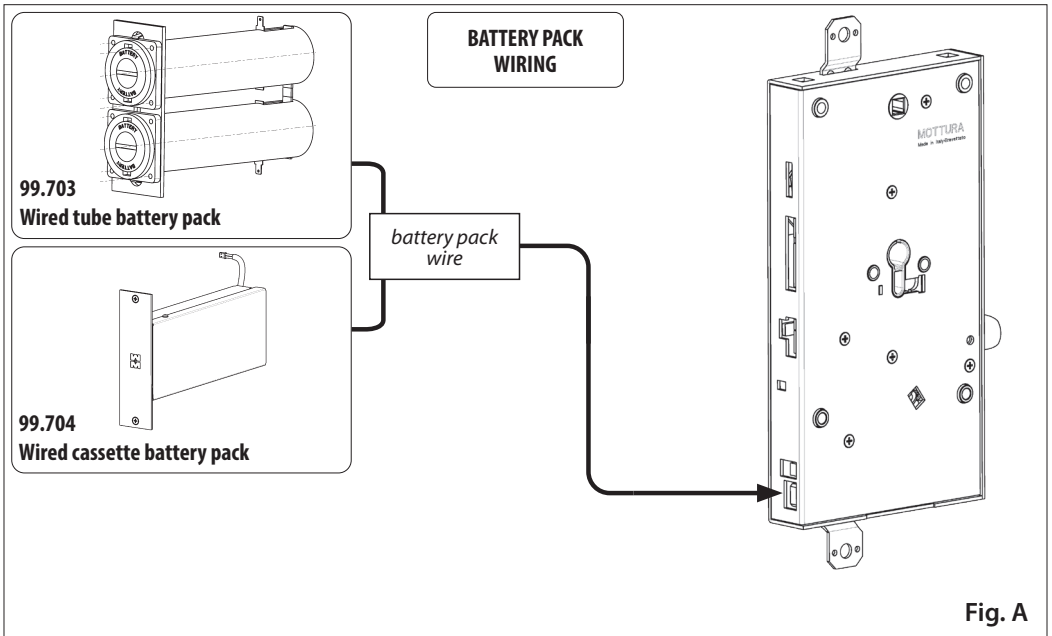
- Non-rechargeable alkaline batteries
- Mains
- Non-rechargeable alkaline batteries + mains.

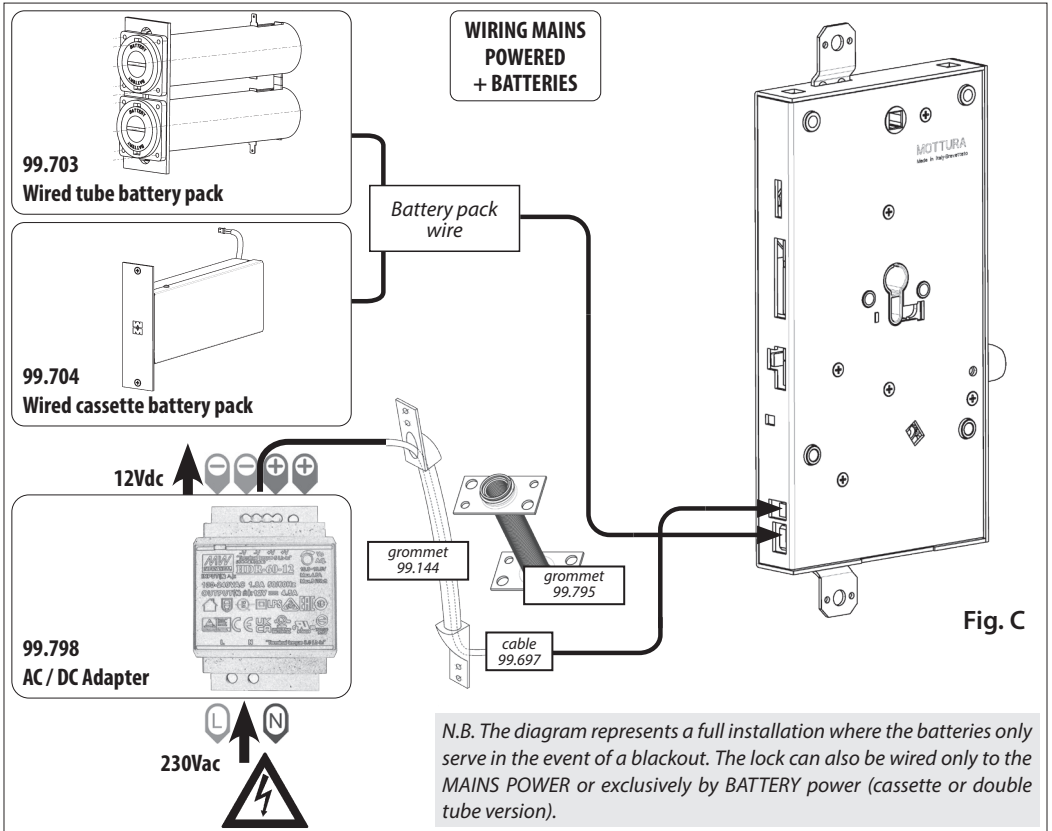
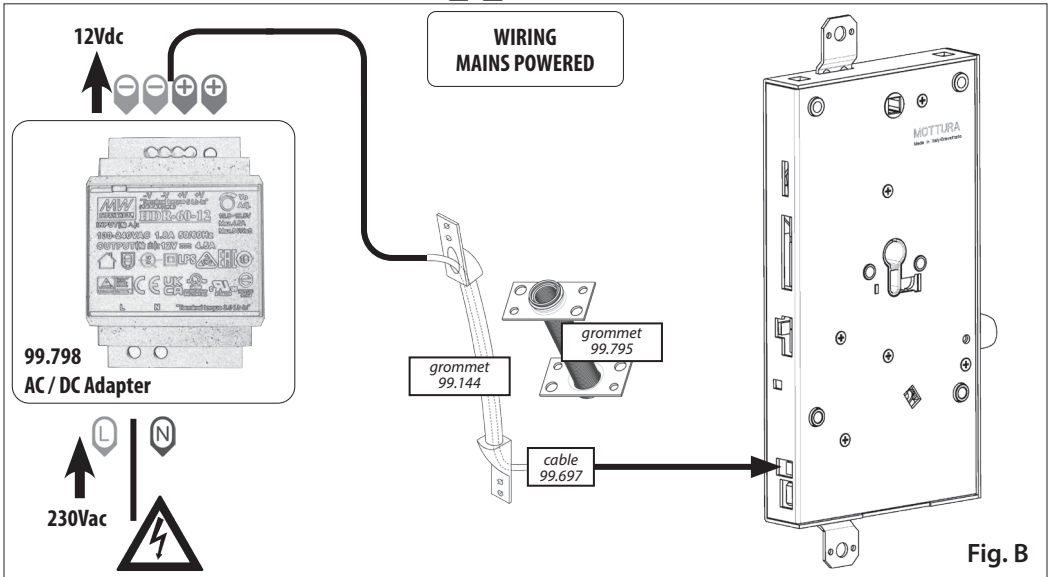
Before switching on the power supply and/or putting the batteries in their housings, make all of the connections and check that all wirings are correct.

The AC/DC Adaptor (Art. 99.798) must be placed as close as possible to the door because it is always preferable to keep the 230 Vac main power cables long rather than the 12 Vdc lock power cables in order to minimize voltage drop on the cable.

If you have to lengthen the lock power cables, never exceed 15 meters with a section of at least 1.5 mm² (AWG15). The following table shows the possible power supply combinations, specifies the wiring diagram to be used for each, and lists the codes for wirings and the components used.

WIRINGS	POWER SUPPLY		
	ALKALINE BATTERIES	MAINS	ALKALINE BATTERIES + MAINS
BATTERY PACK	Fig. A		Fig. C
MAINS		Fig. B	Fig. C

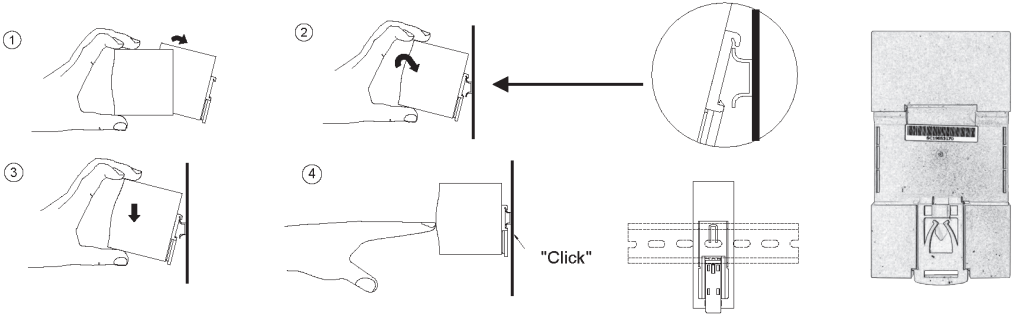




5 - AC/DC ADAPTER CONNECTION (99.798)

5.1 - MECHANICAL FIXING

The AC/DC adapter transforms the 230VAC 50/60Hz home power supply into a 12 Vdc isolated non-stabilized supply to power the lock. The box can be hooked to a DIN guide (EN 60715) (not supplied) and snapped into place (black hook facing downward). To release it, pull the black hook downward with a flat-blade screwdriver.



7.2 - ELECTRICAL CONNECTION

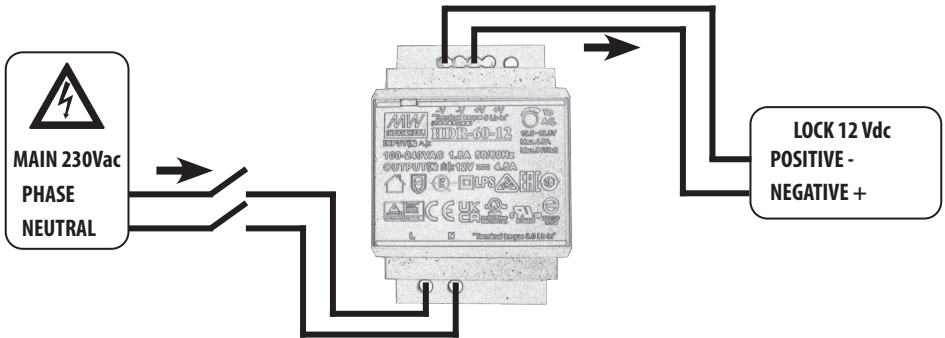


All connections must be made by trained technical personnel in conformity to electrical safety standards and according to the Rules of Good Practice.

INPUT: Connect the 230 Vac 50/60 Hz home power supply to input terminals L and N, inserting a cut-out and two-way switch up-line. Connect the ground of the power supply to the input terminal with the ground symbol.

OUTPUT: Connect the lock power supply cable (code 99.697) to the 12 Vdc output terminals, taking care to respect polarity (red to positive (+), black to negative (-)) to prevent permanent damage to the system.

Double output terminals are provided **ONLY** to power any other Mottura devices. Using these terminals for any other purpose may permanently damage the system.



INPUT POWER SUPPLY	VOLTAGE / FREQUENCY	100 ÷ 240 Vac 1,8 A max 50/60 Hz
	WORK TEMPERATURE	Min -30 °C ÷ Max.+70 °C
OUTPUT	VOLTAGE	12 Vdc 4,5 A max
	RATED POWER	54W
MECHANICAL	WEIGHT	190 g
	DIMENSIONS	(L x P x H) 53 x 94 x 60 mm
WARNING	Always protect the INPUT (electrical system side) with a fuse or magnetic switch of adequate capacity. In order to prevent overheating or fire, always use cables with an adequate section.	

6 - OPERATION AND MAINTENANCE INSTRUCTIONS / USER MANUAL

6.1 - MAINS POWER SUPPLY

If the lock is powered from the MAINS, you have to use an appropriately sized transformer.

The MOTTURA transformer (AC/DC Adapter option Art. 99.798 with cable Art. 99.697) was subjected to tests on the lock to obtain the legally required certifications regarding immunity from electrical and electromagnetic noise as well as emissions to the mains and to the environment. Therefore, it must be used to power lock versions that require a transformer.

The use of any transformer other than the one supplied (even for temporary testing), in addition to creating risk of damaging the lock or causing malfunctions, will immediately void all warranties.

Mottura Serrature di Sicurezza S.p.A. will assume no liability for any harm/damage caused to persons or property.

6.2 - BATTERY POWER SUPPLY

If the lock is powered by BATTERIES, you have to use a battery pack (option Art. 99.703 or Art. 99.704). The system automatically checks the battery charge level at the start of every cycle. When the battery charge is no longer sufficient, correct operation of the lock is not guaranteed. In any case, you should replace the batteries once a year.

Follow these instructions when replacing the batteries:

Never use rechargeable batteries. Doing so will compromise operation of the lock.

Mottura Serrature di Sicurezza S.p.A. assumes no liability for any type of malfunction, fault, and harm/damage caused to persons or property deriving from failure to observe the following instructions, which will also void the warranty.

For alkaline batteries - 6x1.5V type D (LR20): replace all alkaline batteries promptly (or at least once a year) when the battery charge is no longer sufficient. **Don't use Carbon Zinc batteries (R20).**

All of the batteries must be replaced at the same time, with new ones of the same brand and model. When replacing the 6 batteries, be extremely careful to respect their polarity in order to avoid permanent damage.

The battery pack is available in two versions: double tube or cassette.

ATTENTION: Drained batteries are harmful to the environment!!

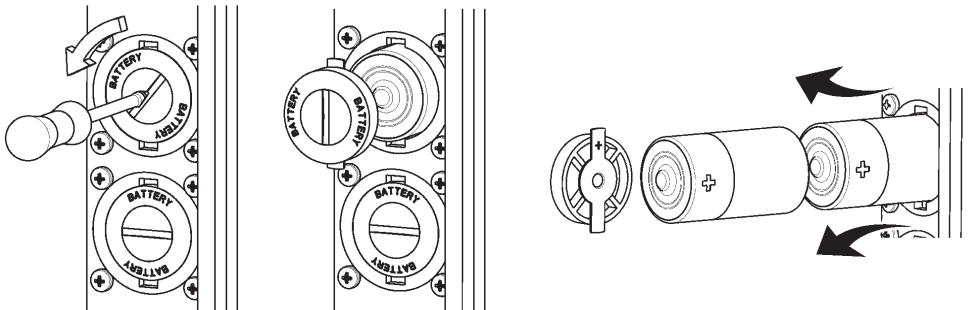
They must be disposed of in special containers found wherever batteries are sold, as required by law.

6.2.1 - DOUBLE TUBE VERSION (Art. 99.703)

To replace the batteries, open the door and insert a screwdriver (or a coin) in the notches on the two covers. Press gently and turn them counterclockwise until they come out, as shown in the figure.

Remove the batteries (three in each tube). If the bottom battery doesn't come out, press on it gently with the screwdriver and release it suddenly so that the spring (which pushes from behind the battery) will expel it completely.

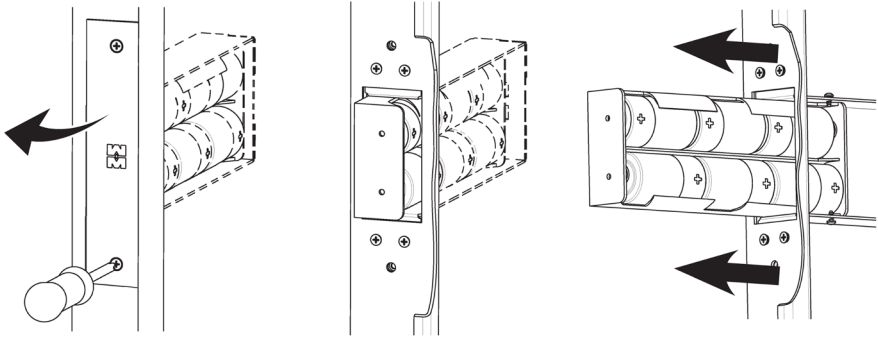
Replace the batteries, inserting them with the negative pole (-) in the direction of insertion and the positive pole (+) facing the cover.



When insertion is done, close the covers by repeating the above steps in the reverse order.

6.2.2 - CASSETTE VERSION (Art. 99.704)

To replace the batteries, open the door and loosen the screws on the front of the battery holder and then completely unscrew both screws, removing the front covering, so that the battery holder cassette is fully open, as shown in the figure. Pull the cassette out until it reaches the stop that prevents it from being completely extracted, then replace the batteries, positioning the new ones as shown on the bottom of the cassette.



After replacing the batteries, reposition the cassette in its housing. Put the front cover back in place and tighten the fixing screws.

6.3 - NOTES ON USING THE CYLINDER

It is designed to overcome power failures or possible malfunctions of the electronic part. Therefore, it is preferable not to use it in normal operating conditions. It must never be used when the lock's electrical motor is working (opening/closing).

ATTENTION : DO NOT use cylinders with knobs.

6.4 - TROUBLESHHOTING

Possible anomalies of the lock and of its working are signaled by the OUT4 and OUT5 outputs of the ten core cable 99.727 that will have a "close" state, meaning an error occurred. (for the other eight outputs of the cable 99.727 contact Mottura or visit the web site). See the table below for the appropriate remedy.

PROBLEM	CAUSE	REMEDY
Output OUT4 closes for a generic error	Possible mechanical seizing of latchbolts and bars during operation	Check that the latchbolts and bars move freely; check that the door closes correctly and is mounted aligned.
	The spring latch does not return to its correct position, even after 5 seconds	Check that the spring latch moves freely with the door both open and closed, and that the door is mounted aligned.
	Lack of cylinder detected (only if the cylinder extraction protection system and cylinder detection sensor are present)	Insert the cylinder in the lock.
	The lock does not detect the correct position of bolts (latch and spring)	Open or close the lock so that the spring latch can protrude completely.
	The door status sensor does not detect the closed door	Check that the lock and door status sensor are positioned according to the mechanical instructions supplied.
Output OUT5 closes for low battery level	The batteries begin to be discharged	Replace the batteries as soon as possible.

IMPORTANT: If the cylinder is present, the mechanical key can always be used to open/close the door from outside and from inside. If the lock still malfunctions after you have made all necessary checks, you should call technical service or request a service call by an expert from an authorized Mottura Service Center. Under no circumstances should you attempt to do technical work on the lock unless you have the necessary knowledge of its parts. Remember that any repairs or maintenance done by unauthorized persons will immediately void all warranties and may cause permanent damage to the entire mechanical and/or electronic apparatus. Even more so, given the greater riskiness of main powered versions (230 VAC), it is essential to have electrical systems repaired and serviced by qualified, authorized personnel who must comply with all electrical safety standards.

Mottura Serrature di Sicurezza S.p.A. declines all liability for any malfunction, fault, harm to individuals, or damage to property deriving from disregard of the above-mentioned rules.



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.

