



Locking System for Light Commercial Vehicles

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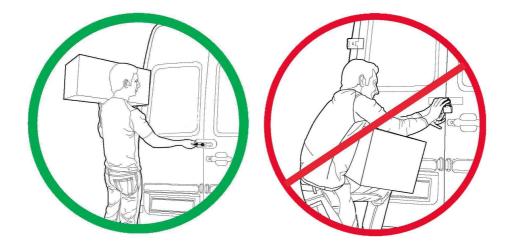
Main Features:

- EASY TO USE Automatic Operation
- AUTOMATIC OR MECHANICAL CLOSURE
- HIGH SECURITY LOCK Patented mechanical lock cylinder
- **EXTERIOR FITMENT -** High "Visual Deterant" from potential attack
- CLOCK HOUSING "Pyramidal" style body against graspable tools attack
- LOCKING BOLT Attack proof & complete protection
- **CUTTING & DRILLING RESISTANT**
- SELF-LEVELLING CLOSURE
- INDEPENDENCE CLOSING BETWEEN CAB&LOADING AREA
- **○** FLEXIBLE SETUP
- INTERNAL ESCAPE Complies with "Health & Safety" regulations
- EASY TO INSTALL

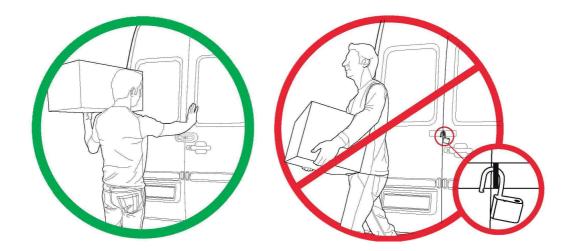




EASY TO USE: the device is opened by inserting the key and rotating it by 180°. The body remains fitted to the doors.



AUTOMATIC OR MECHANICAL CLOSURE: once opened either the lock and the door, you can extract the key since the locking pin is spring loaded and closes automatically. To switch from "Automatic closure" to "on command closure" simply unscrew a screw M4 on the basis of the shell of the lock.



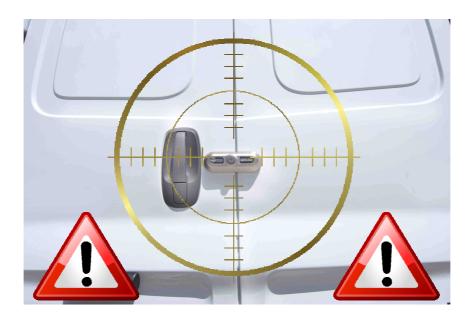
If the device is arranged to "**command mode**", it is necessary to arm the lock with the key before of after the closing of the doors (rear or slinding side doors). This mode allows you to extract the key even if the lock is open, the doors, therefore, can be closed leaving the lock open.



HIGH SECURITY LOCK patented mechanical lock cylinder with 16 steel pins, a theoretical number of combinations greater than 1,000,000 and three stainless steel keys (cylindrical shape) for easier insertion into the lock.



EXTERIOR FITMENT: "Visual Deterant": the visibility of the lock, and the robustness of the device, prevents attackers from potential attempts.

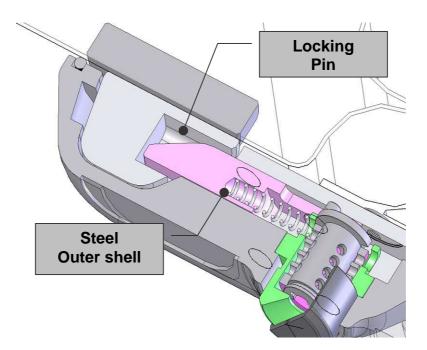


LOCK HOUSING completely rounded shape, prevents the most common burglary tools (pliers, wrench pipe wrench, hammer and chisel, ..) to grasp and pull the lock. In addition, inside the doors, the device is anchored to the sheet through the use of a reinforcing plate which prevents the tear in the event of forcing.





CCKING BOLT: Attack proof and complete protection: The pin is inside the outer shell, as well as every organ of the estate is hardly accessible and therefore unassailable.

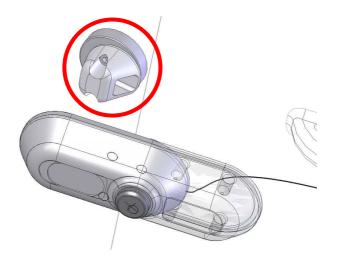




CUTTING & DRILLING RESISTANT: the construction material (steel), heat treatment, surface hardening (carbo-nitriding) and the complex geometry of the block are the natural defense against any external attack.

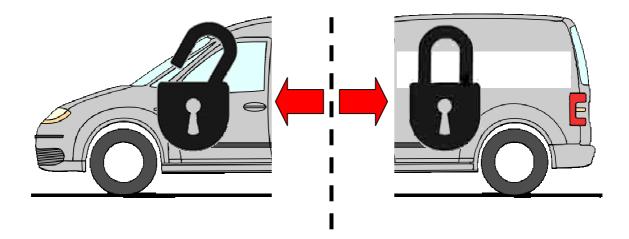


SELF-LEVELING CLOSURE: the lock knob has a conical shape. Therefore, even a misalignment of the doors is corrected by the self-centering coupling KNOB-OUTER SHELL.

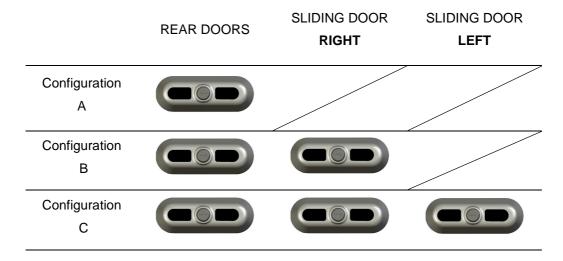


■ INDIPENDENCE CLOSING BETWEEN CAB & LOADING COMPARTMENT: you can make the load area independently of the cab. In this way, if you must leave the vehicle to third persons (for repairs, maintenance, cleaning, unauthorized driver ...), you can release only the vehicle key, which opens the cab, turns on the motor but not the locks of the loading compartment, which is autonomous and armored. Obviously this condition not only protects the content delivered, ensures confidentiality and care.





FLEXIBLE SETUP: thanks to the flexibility of the product, the van can be protected with a number of padlocks equal to the number of doors. In fact it is possible to install the safety device on the rear doors and / or on the door side to increase the security level of the loading compartment. The locks are opened using a single key.



INTERNAL ESCAPE: the product contains a system of opening of the lock from the inside of the vehicle through a steel cable that is directly connected to the piston, which allows the drag and therefore the opening.

The cable length of about 60cm has a cylindrical terminal which is housed inside of the plug while the other terminal is shaped eyelet, allowing the piston to be pulled.

Once opened, the lock can open the door using the internal lock.





Emergency Cable

EASY TO INSTALL: the device is applied directly on the doors (rear or side door) and to be able to anchor you must drill holes through sheet metal, as outlined below.

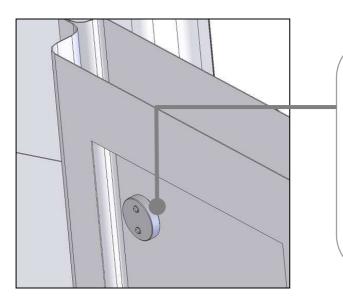
Installation

The device in the MINI version is applied along the edge of the door by using two M8 bolts Cl8.8 screwed directly onto the shell.

Simply run two 9mm holes on the edge without having to remove the lock of the vehicle. In the Standard version, in addition to the two pins M8,the fastening is ensured by two other pins with nut M8 applied internally to the doors.







Installation

The mounting of the knob is made by making two 7 mm holes on the sheet metal and applying a cylindrical inner reinforcement plate inside the door with two M6 bolts.

PRODUCT SPECIFICATION

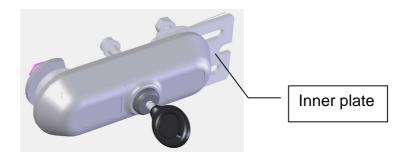
The device is available in two versions: STANDARD & MINI

As can be seen in the following images the two locks are perfectly stackable and have inside them the same mechanism of operation and the same components. The main difference lies in the size of the outer shell (165 millimeters STANDARD version, and 115 millimeters MINI version) and clamping on the doors. In particular, the STANDARD outer shell has 4 fastening pins and allows the application of a reinforcing inner plate. Two of the four pins are normally applied on the extreme edge of the door which is constituted by 2 or 3 superposed sheets and therefore is very resistant; the other two pins act in correspondence with the single flat sheet where it has to be interposed against a plate inside the doors to increase the sealing surface. In this way, the outer shell has a wider and more stable mounting surface, reacting in an excellent way to external forces applied on it in case of break.



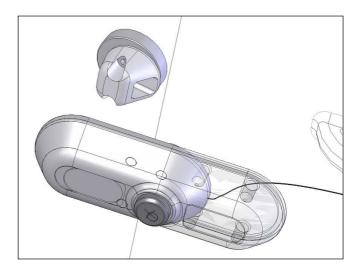


It is clear that the standard version of the armor requires a longer installation time since it is necessary to perform additional holes and if necessary to remove the lock to apply and secure the inner-plate. The choice of model will be based on the level of security needed and the overall cost of the installed product.

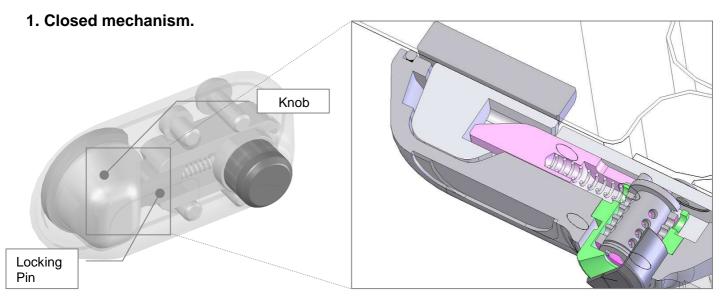


PRINCIPLE OF OPERATION

The device is constituted by the outer shell and the locking knob. The key activates internal lock. When the ignition key of 180 °, drag the locking pin and allows to free it from the respective seat formed inside the knob. It requires no electrical power. It can be installed on the rear doors and sliding side doors.

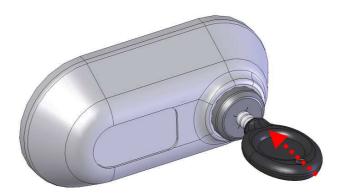




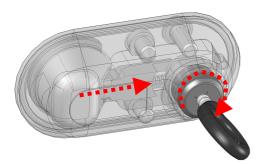


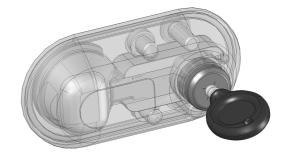
Sectional view of the locking pin, stayed in place and bound by the knob.

2. Key insertion.



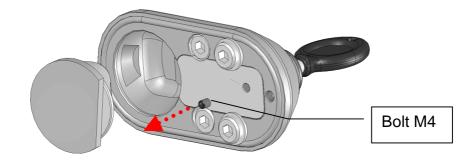
3. Rotation of about 160 ° of the key. The locking pin moves horizontally to the left.







Rotated the key, the lock behaves differently depending on which has been prepared for the automatic closing or closing mode on command. To switch from "automatic closure" mode to "command closure" unscrew a screw / plug M4 on the basis of the outer shell of the lock.



The grain allows the lock to perform or not its full stroke, and only at the stroke end in fact the lock allows the extraction of the key. The system is completely reversible and is subject to different conditions of use.

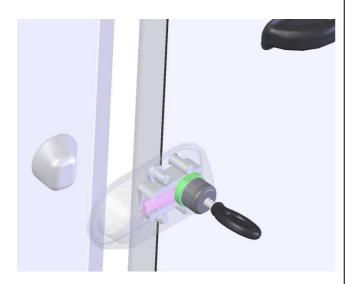
In particular, the "automatic closure" mode is particularly suitable for the protection of the cargo that is often open for loading / unloading in areas at risk and to be assured that every time the door is closed, even the lock is closed. In this case, if you ever forget to close the load compartment with a standard lock (distraction or because of the numerous openings), the lock, definitely closed, ensures the protection of goods.

Otherwise, if the load compartment often remains closed, or is otherwise open for a long period when the vehicle is in a safe area or even if the openings and closures are frequent always in a safe area, it is preferable to have the possibility to extract the key leaving the lock always open and close easily whenever desired, by repositioning the key in the closing phase. Returning to the operating cycle, from the opening off again.



AUTOMATIC CLOSING

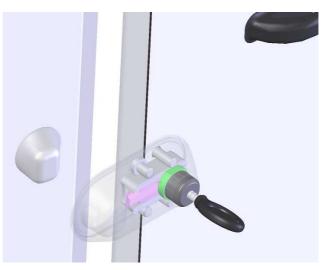
4a. Opening. Being free the knob from the locking pin, you can open the door.



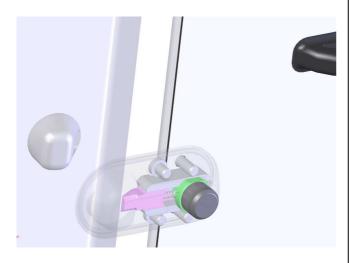
5a. Remove the key. To remove the key, turn the key in the opposite direction, the pin will return later in the rest position

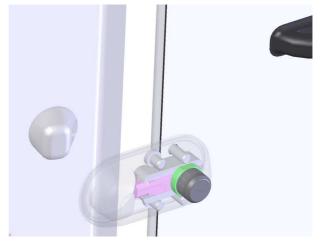
COMMAND CLOSING

4b. Opening. Being free the knob from the locking pin, you can open the door.



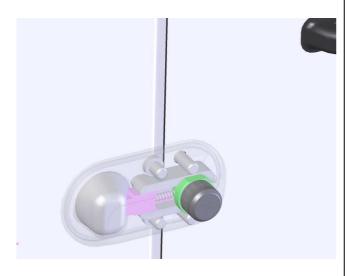
5b. Remove the key. To extract the key must simply arrive at the limit position (full rotation of 180 °); the pin remains fixed in the open position.

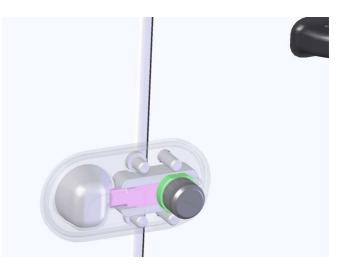






6a. Closing the door, the pin is pushed by the 6b. Closing the door, the locking pin remains conical knob to the left, loading the relative in the open position and does not interact with spring. The same spring, as soon as the the knob conical. Therefore, the lock remains hollow of the knob is aligned, again pushes open while the door is closed with the original the peg in the rest position: the lock is closed. lock.





7b. To close the lock, simply insert the key and turn it 180 degrees counterclockwise: the lock is closed.

