

External locking solution for Commercial Vehicles -BOX VAN



GATELOCK VAN LARGE **GVL**

The protection is achieved through the use of steel padlock applied directly on the doors of the Box Van cargo area.

Its key points are:

- Very easy to use
- Automatic closing
- High security lock
- External application
- Not graspable with burglary tools
- Protected mechanism
- Cutting and drilling resistant
- Compensates vehicle body twisting

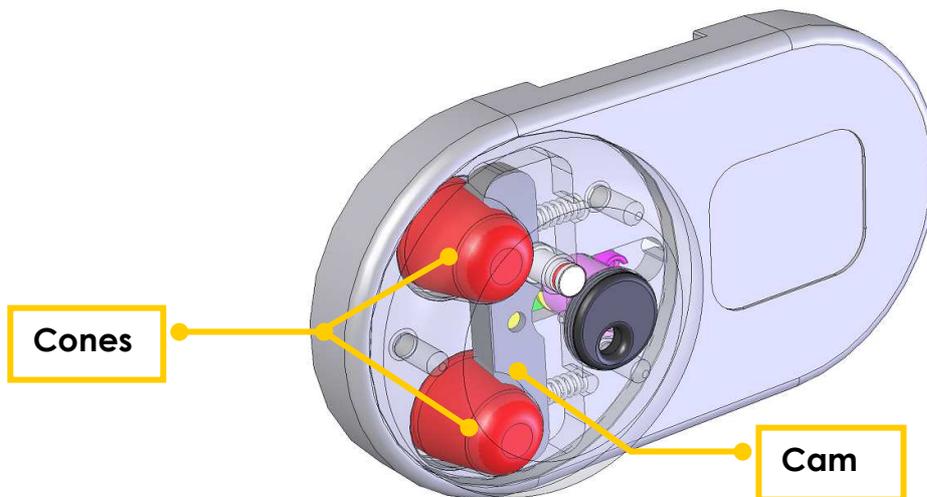
The lock is applied directly on the rear or side doors of the Box Van and remains fitted on the doors when they are opened.

Is opened by turning the key (NETOMA®) of 180° and once opened, the body lock remains fitted to the door.

It closes automatically. When the key is removed (turning the key of 180° in reverse way) and the lock is smashed towards the cones in the closing phase, the lock closes automatically.

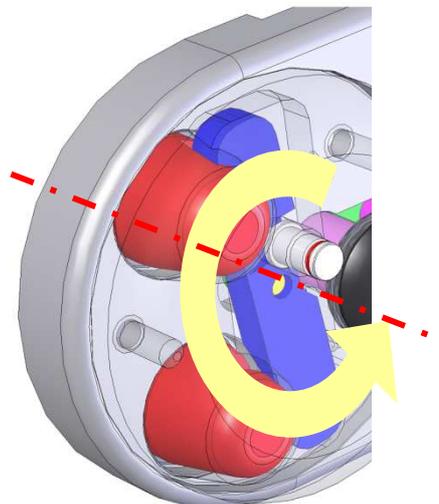
You cannot remove the key if the lock is opened (basic feature: if you do not have the key means that the lock is still open).

The closing system is based on a prismatic coupling between the oscillating **sliding cam pushed by two springs and double locking cone.**



The double locking cone system ensures resistance and a space such as to allow the vehicle body twisting during traffic.

Furthermore, the cam is able to rotate around an axis placed at the middle of the padlock. In this way, any misalignments are compensated by the oscillation of the cam which acts as a latch. Therefore, a critical condition of the vehicle that generate abnormal movements of the hatches are adequately compensated.

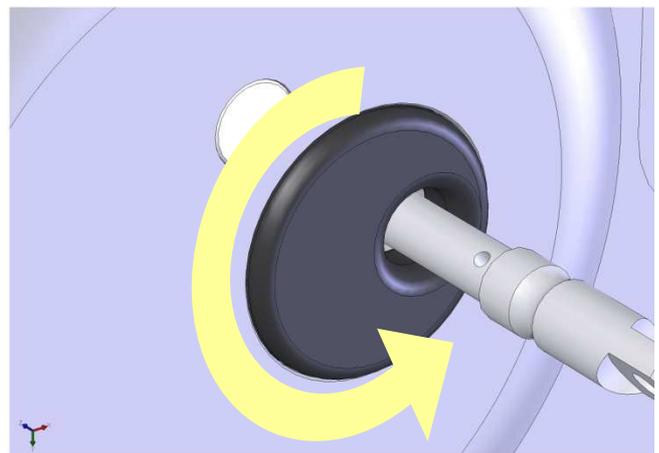
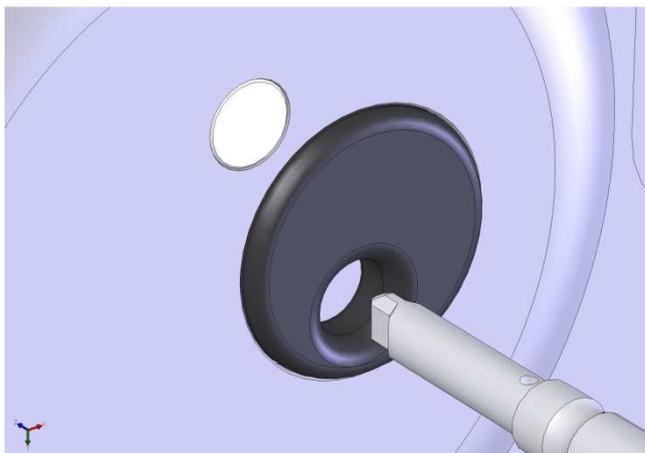


Similarly, burglary actions tend to remove the cam from its seat on one of the two cones are offset and inhibited by the other cone; act simultaneously on the two cones is not feasible or very complex.

The device is anchored through two reinforcement plates to be applied in the inner part of the door, fixed with studs and spacers to not deform the sheet metal of the vehicle.

The lock is equipped with a practical and functional dust cap, designed to protect the cylinder from foreign bodies, dust, water and more in general by various automotive fluids that may impair the proper functioning of the various small components inside the cylinder.

The key entry is performed by turning the key with the cap and aligning the hole with the same cap with the keyhole. In extraction, the internal spring closes the keyhole automatically.



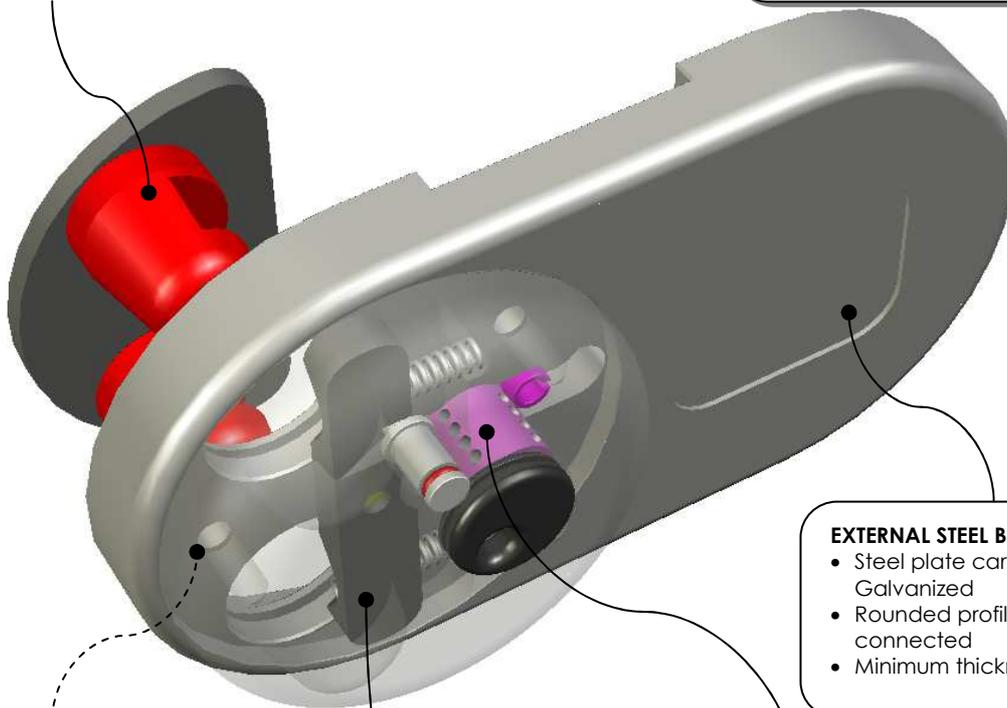
TECHNICAL FEATURES

PLATE WITH DOUBLE LOCKING CONE:

- Hardened steel and galvanized
- Conical shape for self-centering
- Dual beam to compensate for deviations of the rear doors

SPACERS AND STUDS:

- Fixing system and cut reduction zone
- 4x studs M10 body lock side & 2x studs M10 cone side
- Reinforcing plates



EXTERNAL STEEL BODY LOCK:

- Steel plate carbonitridized & Galvanized
- Rounded profile & fully connected
- Minimum thickness of 14mm

PROTECION FLANGE

- Carbonitriding & galvanized steel body
- Not graspable with burglary tools
- Drilling & cutting resistant

HIGH SECURITY CYLINDER

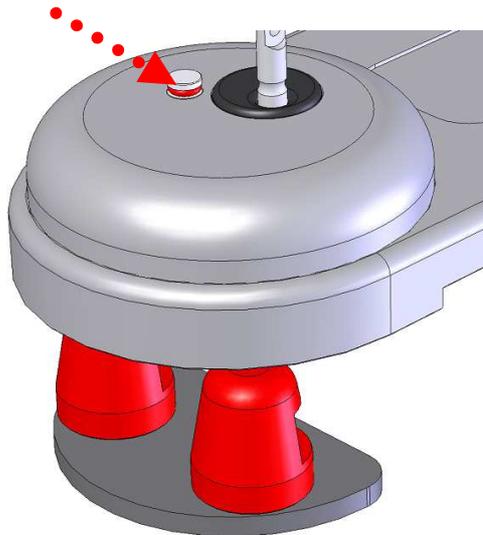
- High security key
- Steel rotor
- Round key shape
- Stainless steel key

LOCKING CAM

- Stainless steel
- 8mm thick
- Protected mechanism

STATUS VERIFICATION

In order to avoid improper closure (door closed but unlocked padlock and predisposed to the closure, a circumstance that may occur as a result of deformation of the door) which would render ineffective the device, a pin has been prepared with a red rubber ring that indicates the user the status of the lock. In particular, if the pin is extracted (the ring red visible) the lock is open; vice versa if it is contained completely in the outer shell the lock is closed. The following details explain the operation.

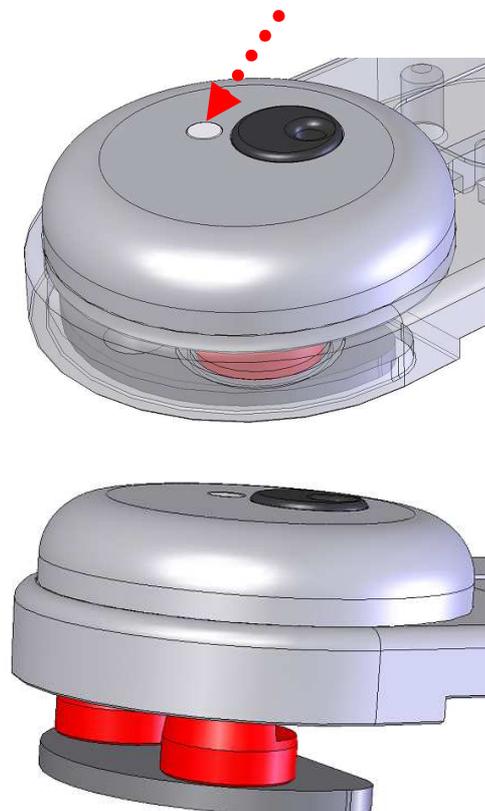


OPEN LOCK:

The pin (indicated by the arrow) is outside with respect to the outer shell of approximately 6mm (position N°1). This means that the locking cam is in the open position (the cones are free to slide). Until the pin is out of the outer shell, the lock is open or not properly closed.

CLOSED LOCK:

The pin is at par with the outer shell (position N°0). This means that the locking cam is in the closed position and, when the door is closed, the cones are inserted automatically and are locked in the outer shell. Obviously, if the cones are very distant from the respective seat (over 2 cm), and if the key is extracted, the pin is at zero but at the same time the lock is open. In this case, however, is clearly visible misalignment between the outer shell and the door (see opposite picture).



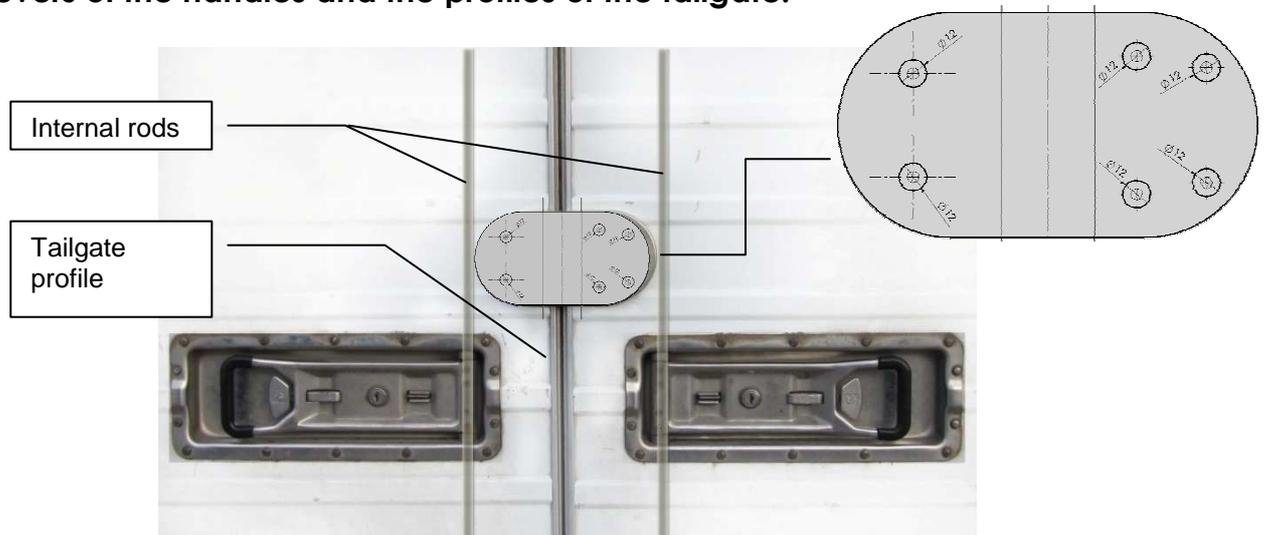
GENERAL FITTING INSTRUCTIONS

1. The lock must be applied at a suitable and available location of the rear doors, next to the original lock, and on a surface suitably flat. Before installation, carefully check the alignment of the two doors. Make sure they close properly, the hinges are not damaged or deformed, and that the gap between the two doors is uniform along the whole height. Otherwise you must register the doors.



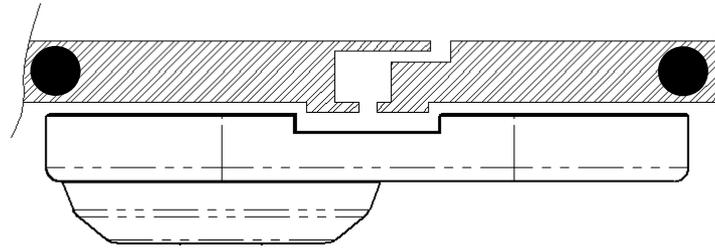
1. Apply the drilling template supplied.

Verify that the position does not generate interference with internal and external rods and levers of the handles and the profiles of the tailgate.



Pay attention to the edges of the door which can deform the drilling template sheet and then generate a misalignment of the holes.

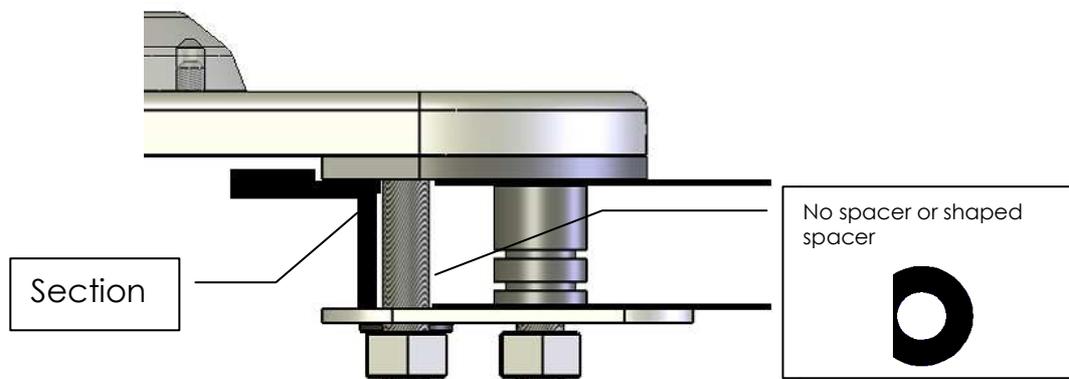
Place in axis with respect to the rear doors. The body lock can be decentralized in order to avoid the above mentioned interference.



2. Mark the hole locations with a tip.



3. Perform pre-holes on the rear door with a drill bit of smaller size (eg 4-5mm) in order to perform subsequently holes from the inside of the rear door with a metal hole saw with a 20-22mm diameter (precisely guided by the pre-drilled hole) for the insertion of the spacers; **the inner hole must not reach the outside sheet.** Furthermore, where the pre-holes are too close to the rail of the rear door and therefore not possible to apply the spacers, do not drill the holes with a hole saw from the inside. For securing the body lock will be sufficient to apply the inner plate and the pin.



After making the counterbores from inside the door with a hole saw, wide the pre/hole with a tip of 11-12mm from outside the door.

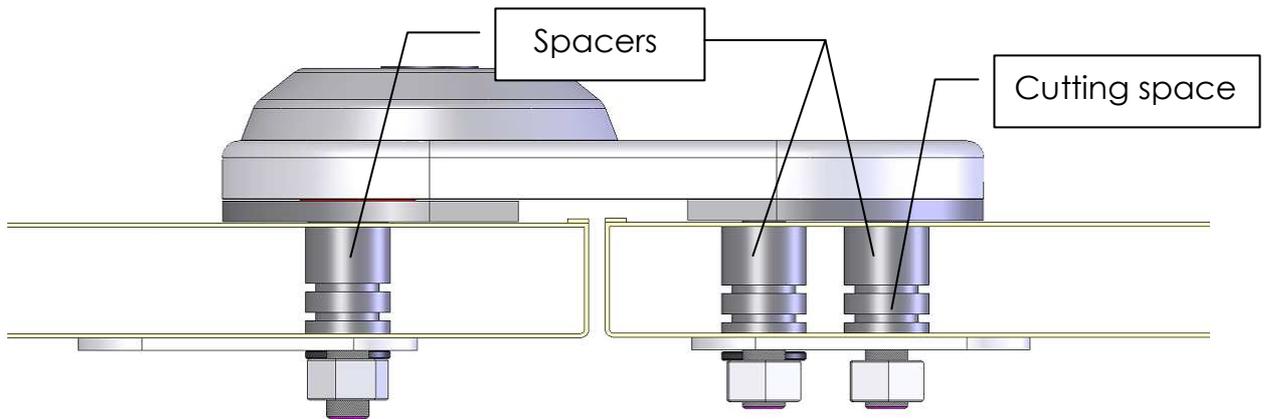


Milling and eliminate any ridges or edges inside the counterbore in order to properly position and align the spacer. Below, the picture shows the final configuration (side of the cone from the inside).

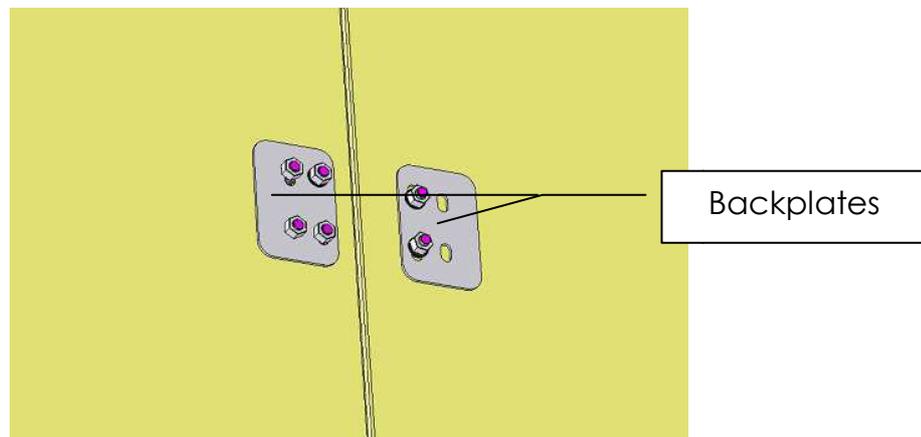


Internal view / Cone side view

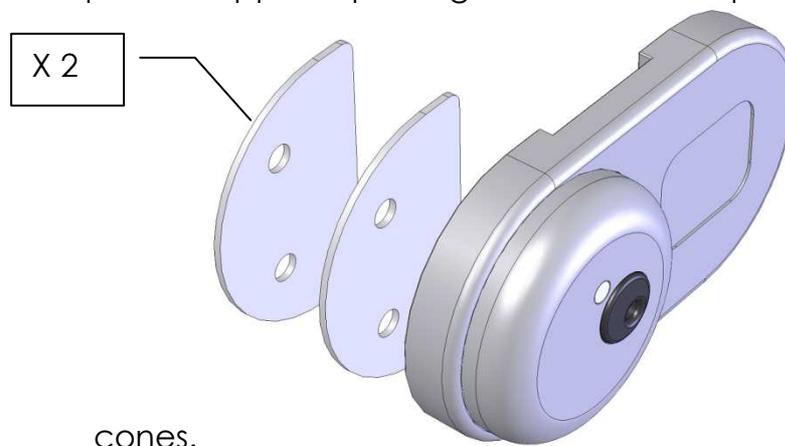
4. The inner holes of 20-22mm accommodated the supplied spacers, which avoid the crushing of the sheet metal. Some grooves on the surface are provided to facilitate the cut and allow the padlock to adapt to different thicknesses of sheet metal and interspace.



4. Finally, apply the inner backplates and the studs supplied. If necessary, shape the backplates (cut and bend) in order to avoid interferences able to deform the sheet metal.



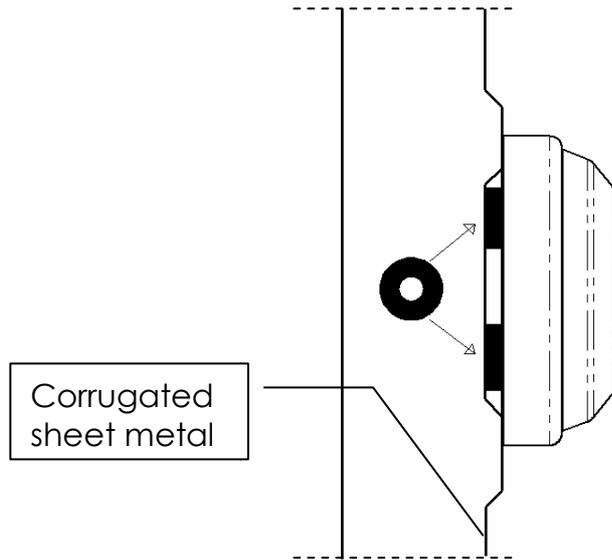
5. Before tightening the nuts verify the correct alignment of the lock with the locking cones. Perform repeated openings and closings with the lock opened. If necessary to contain any misalignments of the cones with respect to the body lock, apply one or two semicircular spacers supplied, placing them under the plate that supports the



cones.

In addition, if the sheet metal of the door is corrugated, in order to avoid deformation of the same at the time of clamping of the pins, it is suggested to place some washers

between the body lock and the sheet metal and between the supporting plate of the cones and the sheet metal.



6. Apply some grease in the conical seats of the body lock and over the inner locking cam.

Fitting examples



Fixing cone side

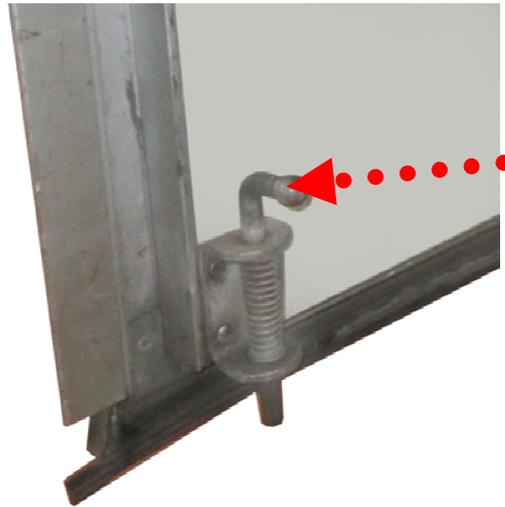


Fixing body lock side

INSTALLATION WARNINGS AND INSTRUCTIONS FOR A PROPER USE



1. Drill the holes of the size specified in the **work instructions**;
2. **Verify always the alignment between strike plate/armor in vertical and horizontal position.**
3. **Verify the free sliding of the locking cam;**
4. During and after installation **never left the keys of the lock** inside the load compartment;
5. **Lubricate the cylinder** every six months using an water repellent spray, anti-corrosive, lubricated, detergent, (example: WD40) with no additives that can attract dust or dirt. Do not use corrosive unlocking spray.
6. **Grease the strike plate and the cam;**
7. When washing the vehicle, do not spray water directly onto the cylinder;
8. A proper use of the lock that avoids unnecessary and arduous operation require that the lock should be opened before opening the handle of the door.
9. If the tailgate (fixed side) is not equipped with a locking handle (or the handle is not locked), you should apply a stake with spring inside (bolt), to improve the performance of the padlock.
10. **Always verify the correct operation of the handles;** in particular make sure that the springs of the handle and the secure are functioning properly and that the hook and the clash comply.



HOW TO HAVE A DUPLICATE KEY

1. It is recommended that the customer sign the Card immediately after purchase, and who keep the card in a safe place. The retailer is obliged to provide duplicate keys only to customers who present the Card.
2. If at the time of the request for additional keys the card has not been signed on the back , you can not produce duplicates.
3. When a signed card is presented by the holder, the retailer will have to check and validate the signature on the back of the card by comparing with the signature on a document of identity.
4. If a customer ordering duplicate key is not who signed the back of the Card must be presented to a delegation requesting duplicates with the same signature as the back of the card and specifically which authorizes and identifies the name of the person who is calling the duplicate. It must be kept in the archives of the retailer. The retailer must validate the signature on the letter with the signature on the Card The retailer must also validate the identity of the person requesting duplicates asking to submit an identity document that reflects the details described in the declaration.
5. The customer must make sure that they withdrew Card.
6. If the keys are not duplicated at the dealer, the dealer must provide the duplicates with a reasonable date

