

# **EXTERNAL LOCKING SOLUTION**

FOR COMMERCIAL VEHICLES

Mod.4 CATEGORY – Medium LIGHT Series (G4MC)



#### Introduction

Dear Customer,

Thank you for buying GATELOCK VAN. The most reliable locking solution to protect your commercial vehicle.

Please read carefully the instruction of how to use & install the GATELOCK VAN, and so to avoid any mistake during the process.

#### **Proper Use of the Lock**

The lock actioned with the key and its components are suitable for environments with the following characteristics:

- Maximum relative humidity 95%
- Ambient temperature 20°C + 60°C.

The accessories are made in such a way that they can be assembled on original components of the lock. If any unauthorized part is used on the lock, the characteristic of the lock will be compromise. The intended use for this purpose is a requirement for the use of the lock.

The operation of the lock and accessories, supplied by BLOCK SHAFT, has been checked. If third-party components are used, it will be necessary to inform the manufacturer if you are ensure about the suitability of the product.

To ensure the use in accordance with the purpose, proceed as follows:

- Providing people with relevant information and necessary instructions in this regard.
- To be installed by qualified personnel, in accordance with the installation instructions. In this regard, it is necessary to comply with the rules in force.

The intended use for this purpose is given, when the padlock and accessories:

- They are used as contemplated by the definition of specifications and installation data.
- They are not used inappropriately.
- They are treated periodically according to the instructions of maintenance and care.
- They are not used beyond their wear limit.
- They are repaired in case of failure, by qualified personnel.

The Contractor / The manufacturer declines all responsibility in case of injury to persons and damage to property as a result of inappropriate use or command, which is not in accordance with the purpose.



#### Improper Use of the Product

Improper use of the device, is:

- When you do not follow the guidelines used for the intended purpose.
- When proper operation is prevented by the contribution of foreign objects and / or non-compliant in the area with the aim of opening in the enclosure or in the feedback / cone.
- When the locking system or feedback / cone is subject to tampering , which shows a change in the structure , operation or function.
- When , to keep open the tailgate or damage is excluded inappropriately latch or other locking elements additional .
- When the closure elements are mounted and subsequently processed in such a way as to prevent the operation, eg. painting over the moving components, such as eg. the latch.
- When to use the key cylinder with normal hand pressure, excessive loads are transferred on the closing system.
- When the crack between the door and the door frame or door and necessary increases or decreases due to, for example, the displacement of the same or lowering the tailgate because of the failure of the hinges or due to deformation caused by shocks.
- When using gears, levers or the like to operate the locking system.
- When you operate the handle and the key at the same time .
- When the lock is locked / unlocked with inappropriate items.
- We use measures other than those listed in the technical data .

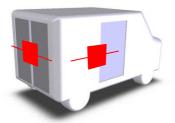
#### The safety instructions are for the installation and use of the lock. They should always be considered!

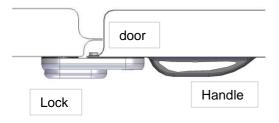
- The manufacturer declines any damage due to the use does not conform to the purpose.
- For safety reasons , the lock is designed to be combined with the original parts BLOCK SHAFT . Using non- BLOCK SHAFT will affect the characteristics of the padlock.
- The tailgate must be closed mechanically with ease.
- The installation and repair of lock requires expertise; therefore should only be performed by qualified personnel.
- For safety reasons it is not allowed to transform, modify, or perform temporary repairs. When replacing components, it is acceptable to use only genuine replacement parts.
- With regard to the safety features of the lock, the manufacturer is, under the rules in force, responsible only when the maintenance, operation and modifications have been performed by the manufacturer or by his agent, according to the manufacturer's instructions.
- BLOCK SHAFT disclaims all liability for damages of any kind caused by a faulty operation, modification, or maintenance.



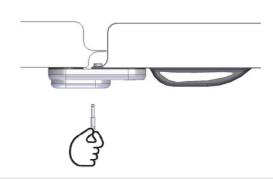
# **FUNCTIONING (REAR & SIDE DOORS)**

View from the top and door section

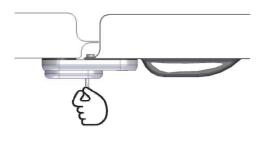




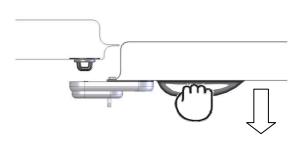
1. Closed lock and door closed



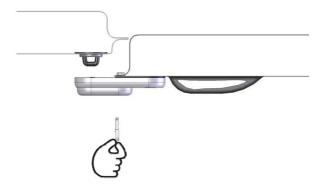
2. Closed lock & door closed.
Insert the key into the cylinder



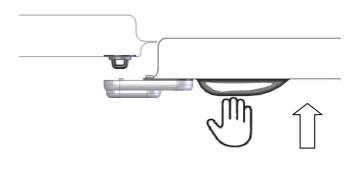
3. Open lock & door closed. Turn the key of about 180°.



4. Open lock & door open.



5. <u>Lock prepared for locking and door open.</u> Turn the key in the opposite direction and remove the key.

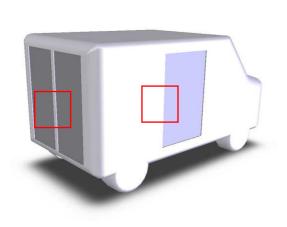


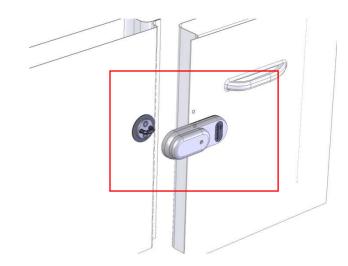
6. Closed lock and door closed.
Lock prepared for locking and door open.
Turn the key in the opposite direction and remove the key.; the lock will close automatically.



# **INSTALLATION**

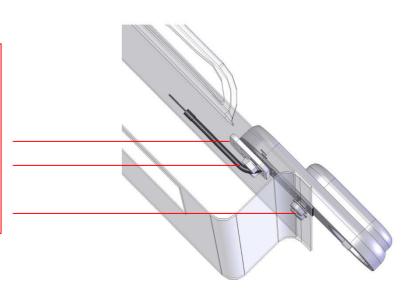
GATELOCKVAN is an external locking solution for commercial vehicles. The lock is directly mounted on the doors, and to install it, you need to drill holes through the sheet metal, as outlined below. The lock can be mounted either on rear and/or side doors (right and/or left sides). **The lock remains fitted to the doors**.

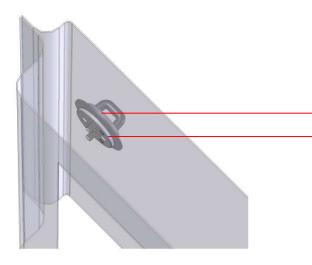




#### Armor

The lock is installed on the door that opens and is fitted over the edge of the door using **M8 bolts** screwed directly on the armor of the lock and two **M8 nuts**, screwed on two studs spilling out form the same armor, inserting a special backplate inside the door.





# Strike plate

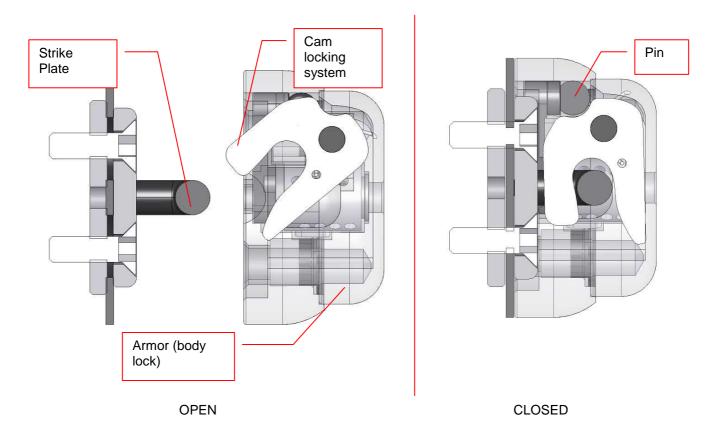
The strike plate attachment is obtained through 2 M6 bolts, screwed on a special backplate seal inside the door.



# **SPECIFICATIONS**

# Cam locking system

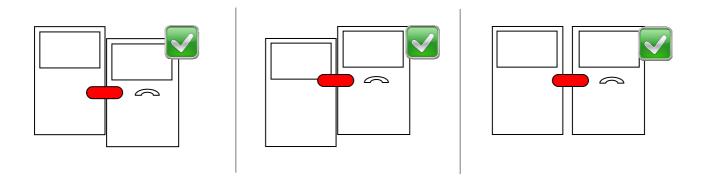
The lock uses a particular shaped cam "C" as locking member. This cam envelops the strike plate applied to the fixed part of the door in the closing phase. This has several advantages.



In the first place, when the lock is closed, the coupling armor-cam-strike plate generates a single body able to resist efficiently attacks of various burglary tools (hammer, chisel, crowbar, screwdriver, pliers ..) . In particular, the strike plate is inserted and almost disappears in the armor, thanks to the cam which joins securely.

Second, this type of coupling between the armor and the strike plate, ensures a considerable movement of hatches that is especially critical, benefiting the operating conditions of the lock.

In this way, you can ensure the proper functioning of the lock even on deteriorated or imperfectly aligned doors.

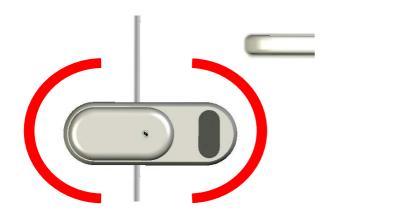


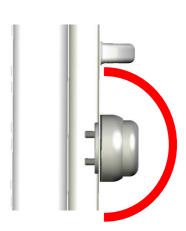


Last, the engagement between the cam & strike plate comes softly thanks to the profile of the same cam, and being no spring or rough coupling, the friction in play during the closing phase are much reduced. This means that the strike plate is no stressed during closing of the lock and thus also the sheet metal (often very thin) on which the same strike plate rests, is minimally stressed avoiding potential deformation or damage of the door.

# Geometries

The shape of the lock is fully rounded and connected, and this prevents the most common burglary tools (pliers, wrench, hammer and chisel, ..) to grasp and pluck the lock. In addition, inside the door, the lock can be anchored to the sheet metal through the use of reinforcing plates which prevent the tear in the event of forcing.





Thanks also to the sturdy strike plate and the cam (8mm thick), the device is able to withstand long against the attacks of unconventional burglary tools such as the hammer of 5kg and the crowbar.

Each sealing member is not easily accessible and therefore unassailable. In particular, the cam that locks the rotation is fully integrated into the shell, fired from the outside by several millimeters of carbo-nitrided steel. The lock body is made up of two components, both made from a steel bar full, and then machined with chip removal on CNC machines.

Finally, the construction material (alloy steel and stainless steel), surface hardening heat treatment (carbo-nitriding) and the thickness of the structure of the device are the natural defense against the use of the drill and hacksaw.

Obviously, attacks lasted for a long time can cause the collapse of one of the organs of the block. That is, however, the rule that a padlock appears to be a deterrent and not always the ultimate solution to the problem of theft; the device must be able to withstand as much as possible to tampering, increasing at the same time the risks of interception for whoever tries burglary.

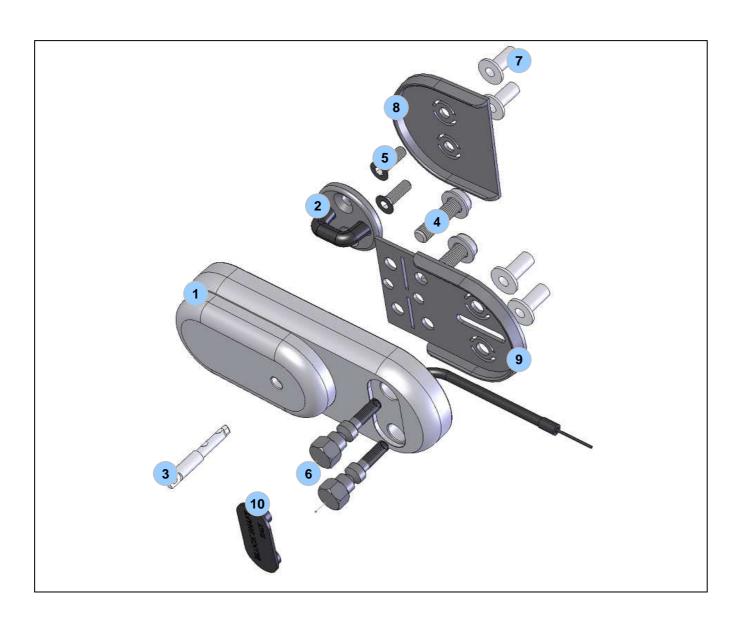
In any case, in order to maximize the effectiveness of the lock is always recommended that a standard lock of the vehicle is running and enabled; in this way, the seal is maximized thanks to the joint action of the two locks (the original lock of the vehicle and the GATELOCK VAN).

Il kit di installazione comprende i seguenti particolari:

- 1. 1 x COMPLETE LOCK WITH EMERGENCY CABLE (2MM STEEL CABLE);
- 2. 1 x STRIKE (HOOK);
- 3. 3 x KEYS + 1 x PROPERTY CARD';
- 4. 2 x M8 BOLTS CILINDRICAL LOWER HEAD WITH WASHERS;



- 5. 2 x M6 BOLTS WITH LOWER HEAD;
- 6. 2 x M6 BOLTS COUNTERSUNK HEAD;
- 7. 4 x PLUS NUT (STEEL RIVETS);
- 8. 1 x PLASTIC SPACER FOR STRIKE PLATE;
- 9. 2 x PLASTIC SPACERS FOR THE BODY LOCK;
- 10. 1 x PLASTIC COVER FOR COUNTERSUNK BOLTS PLACE;
- 11. 1 x KIT OF EMERGENCY CABLE (RED CONDUIT & FERMACAVO);
- 12. 1 x LOGO STICKER;
- 13. 1 x DRILLING TEMPLATE & FITTING INSTRUCTIONS;



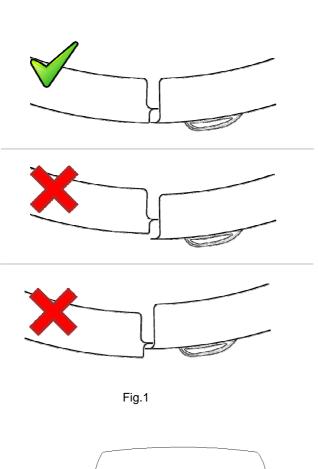


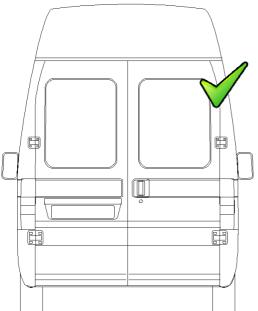
# **GENERAL INSTALLATION PROCEDURE**

The sequence of installation involves a few simple steps that vary from vehicle to vehicle only for a few details. In particular, the height positioning of the armor of the lock is a specification of the vehicle.

# STEP 1

First check the correct alignment of the doors. In the case where the edges of the doors are perfectly aligned (fig.1, fig3), to perform, recording through the STRIKE PLATE (fig.2) and / or the hinges. In the case of doors deteriorated, you need to replace the hinges or back reinforcement.





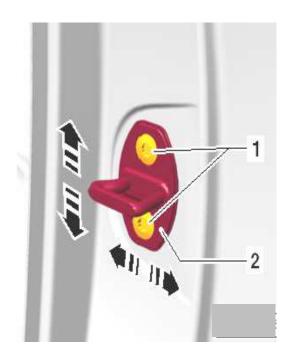
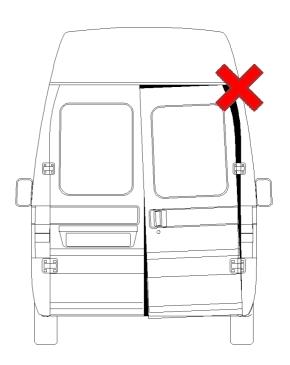


Fig.2





# STEP<sub>2</sub>

Evaluate one or more possible positions of the lock. To this end, there are in general some valid criteria:

• The positioning of the armor, with respect to the lower edge of the door "H", must be such as to maximize the efficiency, thus **the most possible to the center of the door** (see fig.4).

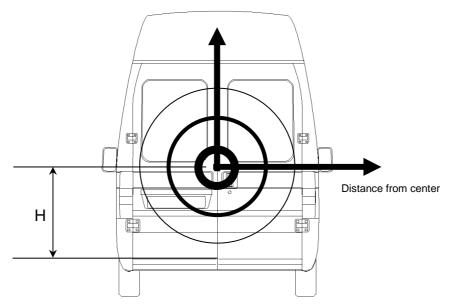
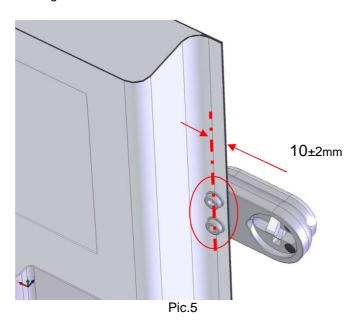


Fig.4

■ The position of the first two 9mm holes is about 10 ± 2 mm from the vertical edge of the door that opens (see fig.5). It is a very durable surface of the door. The stated tolerance is necessary to allow the placement of the M8 cylindrical bolts head within the edge and never over it



- The position of the strike plate & armor must ensure the correct positioning of the backplates and the insertion of the fixing bolts. Must, also, ensure the subsequent tightening with accessing tools. You may need to bend / mill some parts of the sheet metal interfering with that;
- Avoid ribs and special bends of the external sheet metal of the door, applying the armor (body lock) in a proper flat surface and fix;
- The final position is also subject to the type of attachment that you want to use. Therefore, the above conditions must be integrated to the following, in order to identify the best solution.

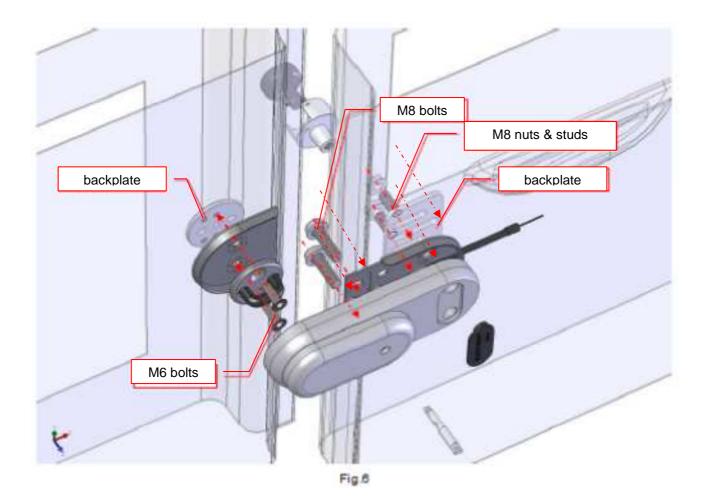


#### STEP 3

The installation involves the removal of the internal panels of the door; it will be necessary to identify suitable areas for placing the lock, free from ridges, molded, original lock, rods and levers. You may need to disassemble the original lock or shape some portions of the sheet metal.

The fixing is done with (fig.6):

- 2 M8 bolts on the armor through the edge of the door;
- 2 M8 threaded nuts on the armor and two M8 studs to be applied from inside, interposing the backplate between them, on which is arranged a slot for the passage of the two nuts;
- 2 M6 bolts to fix the strike plate directly on the threaded backplate.



#### Proceed as indicated below

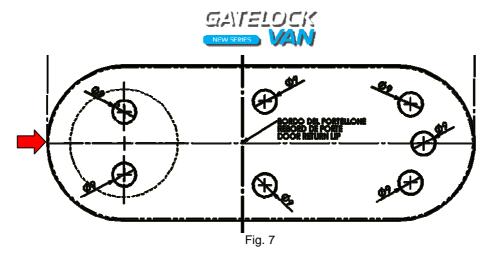
Place the drilling template on the door (fig. 7), using the specify axes as reference points overall.



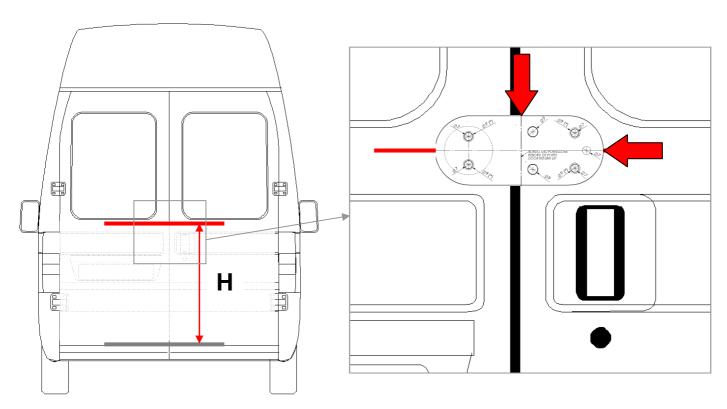
BEFORE DRILLING, CAREFULLY CHECK THAT THERE ARE NO INTERFERENCE INSIDE, ENSURING THE POSSIBLE APPLICATION OF THE BACKPLATES.

#### execute:

- 4 holes of diameter 9mm for the fixing of the armor;
- 2 holes of diameter 9mm for fastening the strike plate;
- 1 hole of diameter 9mm for the passage of the emergency release cable.



To place the drilling template is recommended to draw an horizontal line at the height defined and align the drilling template by aligning the centerline with the line just drawn and the vertical edge of the door (the side that opens) with the vertical line drawn on the template (otherwise draw a line about 10 mm from the edge and align with the center of the first two holes of 9mm) (fig. 8).



Pic.8

At this level, mark the points with a tip where the holes must be performed in order to have a centered drilling:

#### STEP 4



Before drilling, remove or move the original lock of the vehicle or the handle if interferes with the holes in order to avoid future damages of internal components and to facilitate the subsequent assembly step of the lock using the backplates.

The fixing of the armor normally involves the holes on the extreme edge of the door using the two M8 button head bolts.

Before drilling, check that the head of the M8 bolt is contained in the edge (see Figure 5).

In the case where the sheet metal over the holes is not perfectly flat and therefore does not allow a flat accommodation of the M8 bolts head, is recommended to flatten the same sheet metal with a pair of pliers and a piece of plastic (not to bend or damage the external sheet metal) (fig. 9) or alternatively, apply a plane plastic gusset (fig. 10) (not to bend or damage the external sheet metal) with bolts and aluminium /plastic spacers placed between the internal & external edge; by screwing the bolts, the sheet metal will flat, allowing the place of the bolts (fig. 11).



#### Then cover the edges of the holes with protective varnish.

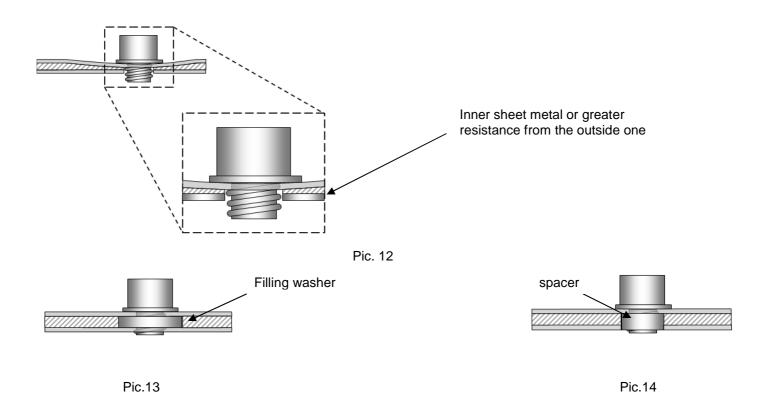






Fig.1

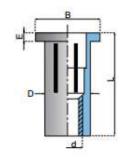
In addition, if at the holes there is a double inner sheet metal with excessive space, in order to avoid the dangerous deformation of the sheet metal with the consequent visible bruise (Fig.12), it is recommended to proceed with one of the following two solutions for the fixing of the bolts (in case it is not possible another location to avoid double inner sheet metals or you cannot outdistance the internal plate by bending it): (A) filling washer (not supplied) applied inside and positioned between the two plates (fig. 13) or (B) spacer (not supplied) applied externally in a counterbore formed in the sheet metal. The counterbore should be of a diameter that doesn't exceed the maximum dimensions of the housing, so that the same may hide the counterbore hole (fig. 14).



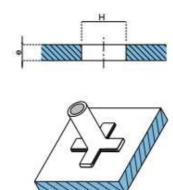
# STEP 5

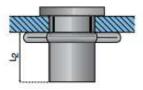
The fixing is done using special steel inserts (see below) that are applied directly on the sheet metal of the door in correspondence of the fixing holes (two for the hook and two for the lock body - see fig.6). These inserts have the characteristic to ensure optimal tear resistance of thin metal sheets. In particular it is a threaded insert cylindrical wide head with four notches on the stem that will form four petals under the effect of the traction, creating a large bearing surface on the opposite side to the introduction of the screw (Fig.6).





Class 2B or Metric Class 6H threads Steel: C1010





#### Apply the PlusNut.

To apply the PlusNut is necessary to use the specific tool as to avoid damages on the sheet metal. (Vedi Fig. 15).



Lubricate 1/2" Jackscrew threads before use

Turn ½ nut in counterclock-wise direction until stud is fully extended. Engage all threads on the stud into the Plusnut. Advance nut until fastener is tight against tool face. Insert fastener into hole.



Place ¾" open end wrench on tool body and hold stationary. Using a ¾" wrench on the ½ nut. Turn clockwise while holding tool perpendicular to the work.

Turn nut until firm resistance is felt. Several turns will be required. A box end ratchet wrench will speed up this operation. Use caution not to overupset the fastener and cause thread damage. Break nut loose with a counter-clockwise motion.

Remove tool from Plusnut by revolving tool body in a counter-clockwise direction.

Fig.15

#### STEP 6

Place the plastic spacer between the sheet metal and the strike (as shown in detail in Fig.16). Run the fitting of the strike using the two M6 bolts with countersunk head.





fig. 16

For a better seal against loosening, is advisable to apply the threadlocker or alternatively slightly dent the thread of the pins.

# STEP 7

Similarly, attach the armor using the 2 pins M8 cylindrical head on the edge of the tailgate and the two M6 burglary pins with front access, to be screwed on the respective Plusnut (fig.17). Interpose the special plastic spacer for the protection of sheet metal.



Do not tighten the M8 burglary bolts (BE CAREFUL NOT TO BREAK THE HEAD); subsequently, the centering of the armor must be performed.

Simultaneously insert the emergency cable sheath. The sheath must be placed in the proper hole and should enter inside the door reaching the inner part of the vehicle.

Be careful not too rush the emergency cable that must slides freely.

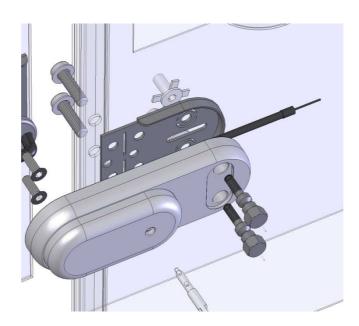
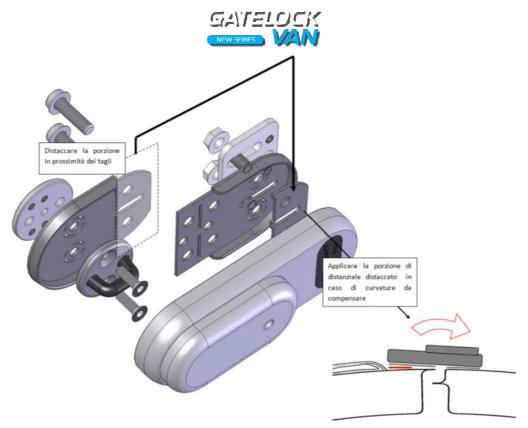


Fig. 17

To compensate any misalignment or particular curvatures of the hatches, one can apply a second spacer below the armor, cut along the cuts prepared. In this way, the lock will curve back on itself and will allow the strike to align properly to its seats on the armor (fig.18).



# Fig.18

# STEP 8

Perform some closings of the door to check the correct alignment of the strike plate. **Align the housing, if necessary, using a plastic hammer.** By exploiting the coupling with remarkable game, having already definitively established only the strike plate, the housing can make small movements to perfectly align the two sides.

This operation must be carried out in open lock (so the key is inserted and rotated of 180°).



Ensure that the cam is open before closing the door (the cam would impact violently against the strike plate) (fig.19).

If it is closed, the lock may be closed or the spring back of the cam may be damaged

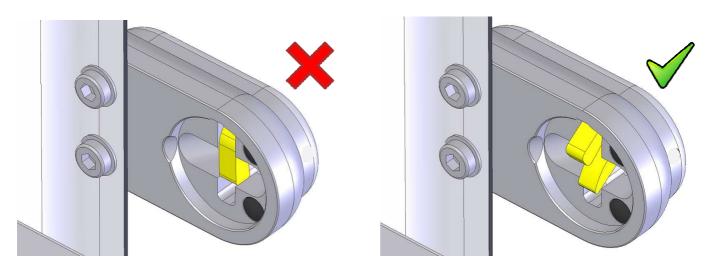


Fig.19

Furthermore, for models that require disassembly of the standard lock, you will need to open the door from the inside of the cargo entering through the side door and pulling the right levers to unlock.

Finally, check the free rotation of the key: must open without straining the key.

Finally tighten the nuts and bolts of the armor.



# STEP 9

Once verified the correct functioning of the lock, including the operation of the status pin that indicates the opening, proceed tightening all the pins.

Apply the plastic cap on the armor to seal the cavity (fig. 20).

On top of it apply the adhesive resin customized (if supplied).

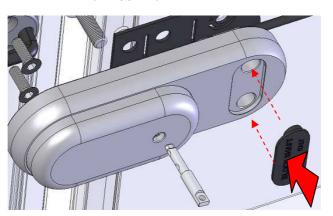


Fig.20

# STEP 10

Lay the emergency cable placing it in a suitable seat (it is preferable to apply it externally with respect to the paneling, thus avoiding holes and giving the possibility to disassemble the panels without having to disassemble the emergency opening) and using the tube red and the cable clamp supplied create an eyelet for the grip (Fig. 21).



<u>PERFORM THE OPERATION WITH OPEN LOCK AND KEY OFF</u>. The cable, during opening, runs along the length of the locking pin (circa 12mm) and the terminal which must be free to slide.

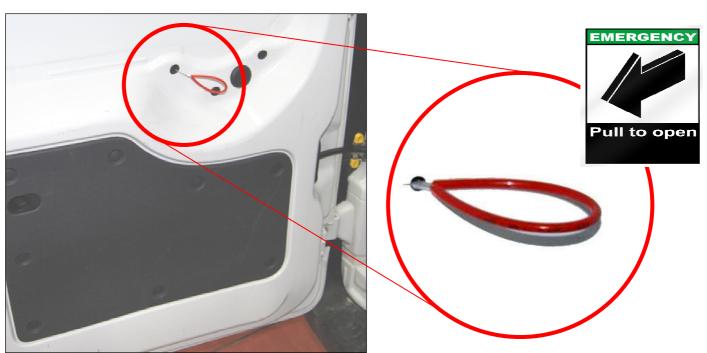


Fig.21



#### Some observations:

- 1) There is no standard location for the application of the eyelet of the emergency cable. This means that every installer can apply the emergency opening where it fits best: upper, lower than the lock, through the panel, near the handle.
- 2) The wire that is bent almost at 90 ° at the exit from the lock and protrudes in the vicinity of the box (column tailgate) is naturally more protected.
- 3) The lower half of the door (where it normally should be placed the padlock) has built several structural reinforcements original (other additional could be applied) that can prevent access from the outside to the cable.
- 4) If you can not place it in the cable, is not to exclude the possibility of protecting the handle with any barrier (plastic or metal) in such a way as to prevent the socket from the top but always guarantee the access from inside.
- 5) As an alternative to additional protection as in step 5) could be placed inside the handle of the box by creating an access hatch from the inside through a hole. It will be necessary to use a drill bit of diameter suitable for the passage of the fingers or hand (according to the depth of the door), protecting the cutting edges of any one seal. Alcune osservazioni:

#### SLIDING SIDE DOOR

Is necessary to follow the same instructions steps of the back door. In particolar, the position of the lock is normally under the sliding side rail of the door.

Verify that the strike does not interfere with the door during sliding opening phase. (fig.22).

Place the drilling template with the longitudinal axis paralel to the side rail and the vertical axis aligned with the edge of the door. If this position does cause interference, you can move a few millimeters the template to the right or left of the vertical axis.

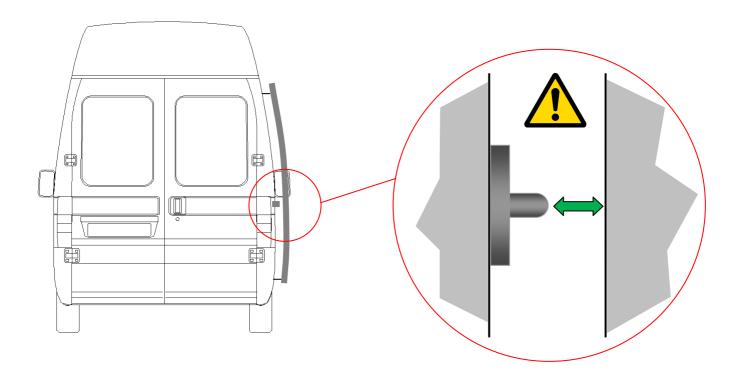


Fig.22



# **INSTALLATION WARNINGS AND INSTRUCTIONS FOR 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 pin that activates the cam, using the emergency cable;
- 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 idrorepelent 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.

#### **MAINTENANCE**

- Check that the safety components are properly installed and check their wear. If necessary, retighten the locking pins and replace defective components.
- At regular intervals (at least once every three months), check the operation and handling of the lock with the key.
- Grease at least once a year ( depending on the intensity of use , most often) , all moving parts and all sliding surfaces with vaseline , and check the operation.
- Lubricate the cylinder every six months ( depending on the intensity of use , most often ) by using a spray water repellent, anti-corrosive , lubricant, detergent , degreaser that does not contain additives that can attract dust or dirt ( or es.WD40 specific locks ) and that is not corrosive .
  - In order not to compromise the protection of the parts against corrosion , use only neutral detergents and cleaning products , free of abrasives.



#### **DUPLICATION OF THE 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.

#### **WARRANTY TERMS**

Block Shaft Srl Submit all its products to striate quality test, and in case of failure of the Gatelock<sup>®</sup> Van, we recommend you to contact us immediately.

#### **DURATION & CONTENT**

Block Shaft Srl Unip. guarantees, according to the following modalities, the proper functioning of the external locking solution for commercial vehicles GATELOCK VAN ® and that the product is free from manufacturing defects.

If, during the warranty period the product fails, Netoma Srl, in its sole discretion, will pay to repair or replace the product or a part of it.

The replacement of defective parts or their repair be made ex works and, therefore, the cost of shipping or shipping of the product, are also charged to the customer, the costs of any requests for inspections by authorized dealers and / or technical the Netoma Srl.

Any delay in the reconditioning of the vehicle, do not lead to the Customer any right to claim damages, nor does it involve any extension of the duration of the warranty

Requests for warranty service shall be taken into consideration only if communicated to Block Shaft Srl within eight days after discovery of the defect.

The only guarantee is provided by Netoma Srl, and therefore excludes any other.

For components not manufactured by Netoma Srl, apply only the warranties provided by the third party.

# WHAT IS GUARANTEED

Block Shaft Srl ensures that all the parts that make up the anti-theft device GATELOCK VAN ®, are made and assembled at the factory, they are FREE from defects in workmanship or materials, if used correctly.

The guarantee is valid for a period of 24 (twenty four) months from the date of purchase shown on your receipt or invoice..

#### WHAT IS NOT GUARANTEED

The warranty does not cover:

- Interventions for which it is impossible to determine the date of purchase of the product;
- Any defect that occurs due to damage resulting from improper use not in accordance with the technical instructions, accident, theft, attempted theft, fire;
- Since the guarantee covers only measures of a technical nature, are excluded from it pecuniary compensation for the damage from any cause may be due. To this end, specific, by way of example only, that will not be compensated for damages resulting latch technical means, incidental or consequential damages such as loss of use, even temporarily, of the medium, the inconvenience or commercial loss.



- Periodic checks, maintenance, repairs or replacement of parts due to normal wear.
- No responsibility can be accepted by Block Shaft Srl. for damage to persons or property resulting from improper use of the product or due to malfunction.

#### REVOCATION

You lose the right to warranty:

- if the device is damaged due to incorrect installation;
- If the product has been used for different purposes and uses to whom it is intended and for which it was designed and built :
- if the defects complained depend on accidents and negligence;
- If the product has been modified or repaired by unauthorized third parties;

#### WHAT THE CUSTOMER MUST DO

Denouncing faults, defects or malfunctions within the time limits mentioned above, in the dealer from whom you purchased the device, or by directly contacting Netoma srl.

To take advantage of the guarantee, the customer must take care of:

- make correct use of the device;
- keep the documents related to the purchase (invoice or receipt, and this document), which are required to obtain warranty repair at an authorized Service by Netoma Srl;

The place of jurisdiction for any disputes concerning the interpretation or execution of this warranty is solely the Court of Bari, ITALY.