

# **EXTERNAL LOCKING SOLUTION**

# FOR COMMERCIAL VEHICLE APPLICATIONS:

MB SPRINTER 2007+, RAM PROMASTER 2014+, RAM PROMASTER CITY 2014+, FORD TRANSIT 2014+, FORD TRANSIT CONNECT 2010+, NISSAN NV 2012+, NISSAN NV200 2014+, GMC EXPRESS, CHEVROLET SAVANA, BOX VAN BODIES

#### **IMPORTANT INFORMATION**

#### Introduction

Dear Customer,

Thank you for buying the EURO VAN LOCK long proven to be the most reliable locking solution in Europe protecting your MB Sprinter, Ram Dodge ProMaster, Ram Dodge ProMaster City, Ford Transit and Ford Transit Connect applications from unnecessary losses. Please read carefully the instruction of how to install and use the EURO VAN system effectively so as to avoid any mishaps during the installation process.

#### Use of your Euro Van Lock

The lock mechanism and key have been designed to be suitable for virtually all operating environments. The hardware and accompanying installation accessories are made in such a way that the operator can use this without compromising the standard OEM van lock component system – fully 100% supplemental. If any unauthorized or third-party part(s) are used, you may experience compatibility issues.

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



# INSTALLATION

EURO VAN LOCK is an external locking solution for commercial vehicles. The lock is directly mounted on the doors and to install it, you <u>will</u> need to drill holes through the vehicle body sheet metal as outlined below. The lock is to be mounted on both the rear and side doors. **The lock remains fitted to the doors at all times**.





## **Door Structure**

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 housing of the lock and two **M8 nuts,** screwed on two studs extending out from the same structure, inserting a special back plate within door.





#### Strike plate

The strike plate attachment is secured using two (2) M6 bolts, screwed thru a special back plate within the door.

## **SPECIFICATIONS**

## **Cam locking system**

The lock uses a particular shaped cam "C" as a locking member. This cam envelops the strike plate applied to the fixed part of the door during the closing process. This has the following advantages:



Firstly, when the lock is closed the coupling armor cam strike plate generates a single body able to resist the most skilled attacks utilizing the most common burglary tools (hammer, chisel, crowbar, screwdriver, pliers, wrenches etc). By design, the strike plate is embedded within and therefore disappears behind the lock armor body while the cam remains joined securely.

Secondly, this type of coupling between the armor and the strike plate ensures considerable vertical and horizontal tolerance of connection between cam and strike plate that it is especially critical allowing for the proper functioning of the lock even on deteriorated and/or imperfectly aligned doors as seen below.







Lastly, the engagement between the cam and strike plate requires very little pressure thanks to the profile design of the cam being absent of a more typical loaded spring style with a less than optimal cam strike plate angle generating added friction are reduced to near zero with this design. Therefore, this means that the strike plate is not continually impacted in any significant way during the closing and opening process of the lock.

# Geometry

The shape of the lock is fully rounded and connected and this prevents the most common burglary tools (hammer, chisel, crowbar, screwdriver, pliers, wrenches etc.) from getting under and prying at the locks edge.



With no easily accessible edge with which to pry under along with the unit being fully integrated under the lock body, your misdirected burglar should move on in short notice. The lock body is made up of two construction components (surface hardened heat treated alloy steel and stainless steel) rendering the system impervious to high speed drills and hacksaws.

In any case, in order to maximize the effectiveness of the lock it is always recommended that the vehicles standard issued OEM security locking system also always be engaged; in this way, you are to maximize the joint action of the two locks in unison (the original OEM lock of the vehicle and the EURO VAN LOCK). The installation kit includes the following parts:

- 1. 1 x COMPLETE LOCK with SHEATHED CABLE
- 2. 1 x STRIKE PLATE
- 3. 3 x KEYS + 1 x CODED PROPERTY CARD
- 4. 1 x BACKPLATE FOR STRIKE PLATE
- 5. 1 x BACKPLATE FOR BODY LOCK (HOUSING)
- 6. 2 x M8 BOLTS CILINDRICAL LOWER HEAD WITH WASHERS
- 7. 2 x M6 BOLTS COUNTERSUNK HEAD
- 8. 2 x M8 STUDS
- 9. 2 x M8 NUTS
- 10. 1 x PLASTIC SPACER FOR STRIKE PLATE
- 11. 2 x PLASTIC SPACER FOR BODY LOCK (HOUSING)
- 12. 1 x PLUG SEAT BURGLAR BOLTS
- 13. 1 x KIT FOR EMERGENCY CABLE WITH SEAL PROTECTION
- 14. 1 x DRILLING TEMPLATE & FITTING INSTRUCTIONS



# **GENERAL INSTALLATION PROCEDURE**

The sequence of your installation involves a few simple steps that vary from vehicle to vehicle and pertains to the vertical (height) positioning of the lock housing on your specific vehicle.

### STEP 1

Check the alignment of the doors ensuring that the edges are perfectly aligned in all directions (fig.1, fig3), Momentarily check the orientation placement of the lock strike plate (fig.2) and / or the hinges. In the event you are unable to achieve proper alignment, replace the door hinges.











Fig.3

Evaluate one or more possible positions of the lock utilizing the following general criteria:

• The positioning of the body lock with respect to the lower edge of the door "H" must be maintained as to maximize both efficiency and optimize structural mounting points while naturally using **the center of the door** (see fig.4).





The position of the first two 9mm (23/64ths) holes is about 10mm (25/64ths) ± 2mm (5/64ths) from the vertical edge of the door that opens (see fig.5). It is a very durable surface area of the door. The stated tolerance is necessary to allow the placement of the M8 cylindrical bolts head within the edge and never being over it.



- The position of the strike plate and housing must be positioned precisely using of the back plates with the
  accompanying bolts. The professional up-fitter/installer must also ensure that all hardware(s) are tightened
  adequately using tools not provided;
- Avoid any ribs (structural or otherwise) and special bends of the external sheet metal of the door only
  proceeding further with the installation of the body lock on a flat surface;

The installation involves the removal of the internal panels of the door; it will be necessary to identify suitable areas for placing the lock that are free from ridges, molding, the OEM original lock, any rods and/or levers. You may need to disassemble the original lock or shape some portion(s) of the door sheet metal during the installation process for added clearance.

The installation is done using Figure #6 as a guide:

- 2 M8 bolts on the housing through the edge of the door;
- 2 M8 nuts and studs into the lock housing to be affixed from inside using the backing plate that incorporates two slotted passage ways designed for alignment purposes;
- 2 M6 bolts to fix the strike plate directly onto the pre-threaded back plate.



Fig.6

Proceed as indicated below and place the drilling template on the door (fig. 7) using the specified reference points.



## BEFORE DRILLING, CAREFULLY CHECK THAT THERE ARE NO INTERFERENCES INSIDE THE DOOR CAVITY THEREBY ENSURING AN EASY INSTALLATION OF THE BACKING PLATES.

Complete the following:

- 4 holes of diameter 9mm (23/64ths) for the fixing of the housing;
- 2 holes of diameter 9mm (23/64ths) for fastening the strike plate;
- 1 hole of diameter 9mm (23/64ths) for the passage of the emergency release cable.



When physically locating the drilling template, it is recommended that the installer draw an horizontal line at the desired height and align the drilling template by both 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 10mm (25/64ths) from the edge and align it with the center of the first two 9mm (23/64ths) holes (fig. 8).



Fig.8

At this level, mark reference points with a center punch where the holes must be drilled to ensure centered drilling.



Before drilling, temporarily remove or partially dismantle the original lock of the vehicle and/or handle if it interferes with the desired hole locations in order to avoid unintended damage(s) of any internal components and to provide additional access and rapid assembly of the lock back plate installation process.

The initial mounting of the lock housing 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 remains within the edge (see Figure 5).

In the case where the sheet metal near to the holes are not perfectly flat and subsequently does not allow for a flat surface for the M8 bolts head, it is recommended to flatten this area of the sheet metal using a pair of pliers and a piece of plastic (so as to not to bend or damage the outside/exterior of the sheet metal) (fig. 9) or alternatively, using a plastic sheet (so as to not to bend or damage the outside/exterior of the sheet metal) (fig. 10) sleeve bolts with aluminum/steel spacers placed between the internal and external edge. By tightening the bolts, the sheet metal will flatten the desired area allowing for the desired placement of the M8 bolts (fig. 11).

### Then cover the edges of the holes with protective coating or silicone prior to assembly.



Fig.09

Fig.10

Fig.11

Additionally, if the hole presents itself with a double inner sheet metal fold with excessive thickness – you may avoid any undesirable skin deformation of the sheet metal creating a visible bruise (Fig.12) it is recommended to proceed with one of the following two solutions in the event it is not possible to relocate avoiding a an excessively thick double inner sheet fold: (A) use a filling shim spacer washer (not supplied) inserted inside and positioned between the two skins (fig. 13) or, (B) use a filling shim spacer washer (not supplied) inserted externally in a counter bored recess drilled into in the exterior sheet metal. The counter bore recess edge should be of a diameter that doesn't exceed the maximum dimensions of any edge of the lock housing so that all remains hidden externally (fig. 14).



Place the back plate inside the door. In the event of unavoidable interference between the back plate and inner sheets, molding or ribs - you may improvise (cut, shorten, turn, bend) the back plate according to your specific needs. At this stage, you may need the help of a second person inside the vehicle that supports the back plate in position so that you may screw the corresponding nuts on (fig.15).



Insert the plastic spacer between the sheet metal and the strike plate (as shown in figure 16). Make sure the strike plate is affixed using the M6 nuts provided with the countersunk head (fig.16). For additional tightening and to eliminate the chances of these backing out, it is recommended to apply the appropriate Loctite styled thread adhesive to the bolts. The back plate of the strike plate provides 2 different mounting positions - determine the most suitable position according to the mounting space available (fig.16).



fig. 16

Attach the housing using the 2-pin M8 cylinder head on the edge of the door and the two (2) M8 threaded studs on the housing, plus the two (2) M8 nuts to be used directly from inside threaded into the back plate slotted holes for the passage of the two studs (fig. 17).

When mounting, it may be helpful but in most cases not required to remove or temporarily relocate the standard factory OEM lock away from its factory position giving you greater access.



<u>Do not tighten the M8 nuts all the way initially until you have centering of the lock body housing</u>. At this time, insert the sheath of the cable for backup internal emergency operation/opening. The sheath should be inserted into the hole and exit the interior door skin so that it is easily reachable within the interior of the vehicle by the operator. <u>Be careful not to pinch this emergency wire sheath which must slide freely and not bind</u>.



Fig. 17

To compensate for the eventual door misalignment due to sag over time or the special radius designed into the van doors, you can utilize a second spacer under the housing. In this way, the lock will bend back on itself and allow the strike plate to align correctly with its optimal designated location within the lock housing itself (fig.18).



#### STEP 8

Perform some test closings of the door to check for correct alignment of the strike plate. Align the housing if necessary using a small plastic hammer very lightly as the housing can achieve small movements to perfectly align the two sides. This operation must be carried out only while the lock clasp is kept open (the key is inserted and rotated of 180°).





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 it.

Finally, check the free rotation of the key - must open without straining or creating tension on the key.

Finally begin to tighten the nuts and bolts of the lock case.

Once the testing of the lock has been satisfied by the installer including the operation of the status pin that indicates an open position – proceed to tighten all the hardware down.

Install the plastic domed cap on the lock housing case front to cover the two visible mounting thru-bolt holes and to seal the cavity (fig. 20).



#### STEP 10

Straighten the emergency cable by placing it within an appropriate interior access opening (it should be readily accessible by snaking it out thru the panel joints or openings of the inner door frame in order to avoid drilling additional holes and allowing the possibility of removing the door panels without removing the emergency cable) and affix the supplied **red emergency knob**. The system includes a release knob mounted inside a metal support bracket mounted to the door, locked and retained in place with a seal (fig. 21).

Once installed, access from the inside only involves **breaking the seal** followed by **pulling on the red emergency knob** using 2 fingers after removing it from its metal support housing. Kindly reverse this process once access to your van has been accomplished.



While attempting to position the emergency release support as close to the lock housing as possible, it remains critical that the release cable maintain a relaxed routing with no 90° bends which may create binding. On the sliding door, ensure that there is no interference or contact between the knob and structural sheetmetal edges.







Prior to installation and with the van doors opened, open the lock and keep the key rotated up to its stop limit (fig. 22).



fig. 22

The installation of the red emergency knob and bracket involves the following steps:

Step 1: Drilling of the door (and/or the panel). Insert the cable into the metal support and screw it in (fig. 23).







Lightly screw the spherical end onto the threaded emergency cable end until you reach close to the end of the threads (and not more) as indicated below (fig. 24). It is advisable to test this connection to ensure that the knob has a free non-binding motion until it stops. Remain focused on the alignment and location of the security seal hole drilled through the red emergency knob with those high flanges in the metal support bracket where the security seal will thread and mount. Once the alignment is verified, remove the knob to tighten the screws.



Step 2: Fix the metal support on the sheet metal of the door or the panel by using the screws (fig.25).



(fig. 25)

Step 3: Attach the knob and rotate to align the security seal passing hole on the knob with those of the metal support (in this way, the emergency cable will be hidden from above (fig. 26)



(fig. 26)

**Step 4**: Close the lock and apply the security seal (fig. 27)



### SLIDING SIDE DOOR

The same steps provided for the rear doors must be followed for the sliding side door.

In particular to the side door, the position of the lock is normally below the horizontal sliding guide of the door.

Check that the strike plate does not interfere with the van outer door skin when opening and sliding rearward (fig. 28).

Place the drilling template with the longitudinal axis parallel to the sliding guide and the vertical axis aligned with the edge of the door. If this position causes interference, it is possible to move the drilling template a few millimeters to the right or left of the vertical axis.



Fig.28



- 1. Drill the holes the size specified in the work installation instructions.
- 2. Verify alignment between strike plate/housing in vertical and horizontal position.
- 3. Verify the free sliding of the emergency locking pin cable that activates the cam.
- 4. After installation, never left the keys of the lock inside the cargo or passenger area.
- 5. Lubricate the cylinder every six months using a anti-corrosive lubricated detergent such as WD40 with no additives that can attract dust or dirt.
- 6. Grease the strike plate and the cam with a lithium based product readily available.
- 7. When washing the vehicle, do not spray water directly onto the cylinder.
- 8. The EURO VAN LOCK should be opened before using the vehicles OEM handle lock.

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