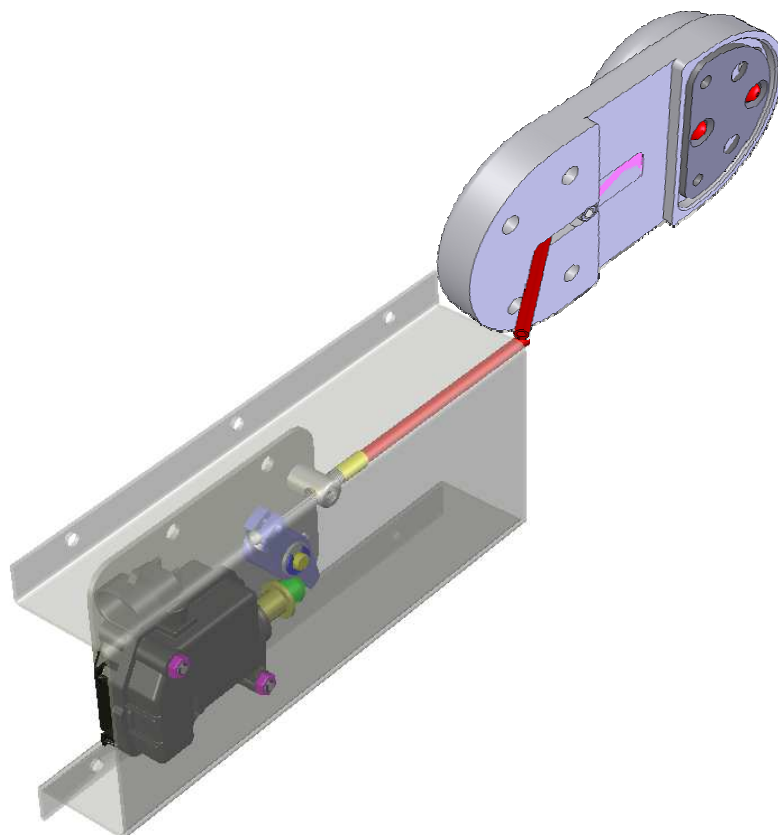


GVL Series 4 (ELECTRIC VERSION)



The device consists of a servomechanism that is integrated to the padlock + control unit (12V) with remote control.

When it receives the command, the control unit activates the linear actuator which, through a connecting rod back, recalls the sliding cam inside the armor lock. Reached the end of stroke, the cam is released than the cones and permits the opening of the lock and then the door (rear door or side door).

After a few seconds after, the control unit activates the reverse rotation of the motor and thus the leverage swings back into the safety position, allowing the cam to hang the cones.

The control unit is also available with actuation from remote device management from headquarters. In this case, you can enable and disable the operation with remote control and open the lock remotely via the control center

IMPORTANT INFORMATION

Introduction

Dear Customer,

Thank you for showing your confidence in purchasing our product.

Read carefully the instructions to familiarize yourself with the installation and operation of the lock with electromechanical drive, and to avoid mistakes and dangers.

Intended use

The padlock with electromechanical drive and the recommended components are suitable for environments with the following characteristics :

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

The accessories are made in such a way that they can be assembled on the original components of BLOCK SHAFT Srl Unipersonale. If unauthorized parts are used on the BLOCK SHAFT Srl Unip., the characteristics of the device are altered. The intended use for this purpose is a prerequisite for the use of the device.

The operation of the lock and servo as well as accessories , supplied by BLOCK SHAFT Ltd. Unip . , Has been checked. If third-party components are used , it is necessary to inform the manufacturer if in doubt suitability.

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. The rules must be followed

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

- are used as contemplated by the definition of specifications and installation data .
- are not used inappropriately .
- are treated periodically according to the instructions of maintenance and care.
- are not used beyond their wear limit.
- 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.

Unproper Use

- Improper use , or non-conforming use in compliance latch 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 the cone is subject to tampering , which shows a change in the structure , operation or function.
- When , for damage or to hold open the door, the latch is excluded inappropriately or other additional locking elements .
- 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 slit necessary , between the door and the tailgate or between the door and the frame , increases or decreases due to, for example , the displacement or sag of the same door because of the yielding of the hinges or due to deformations 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.

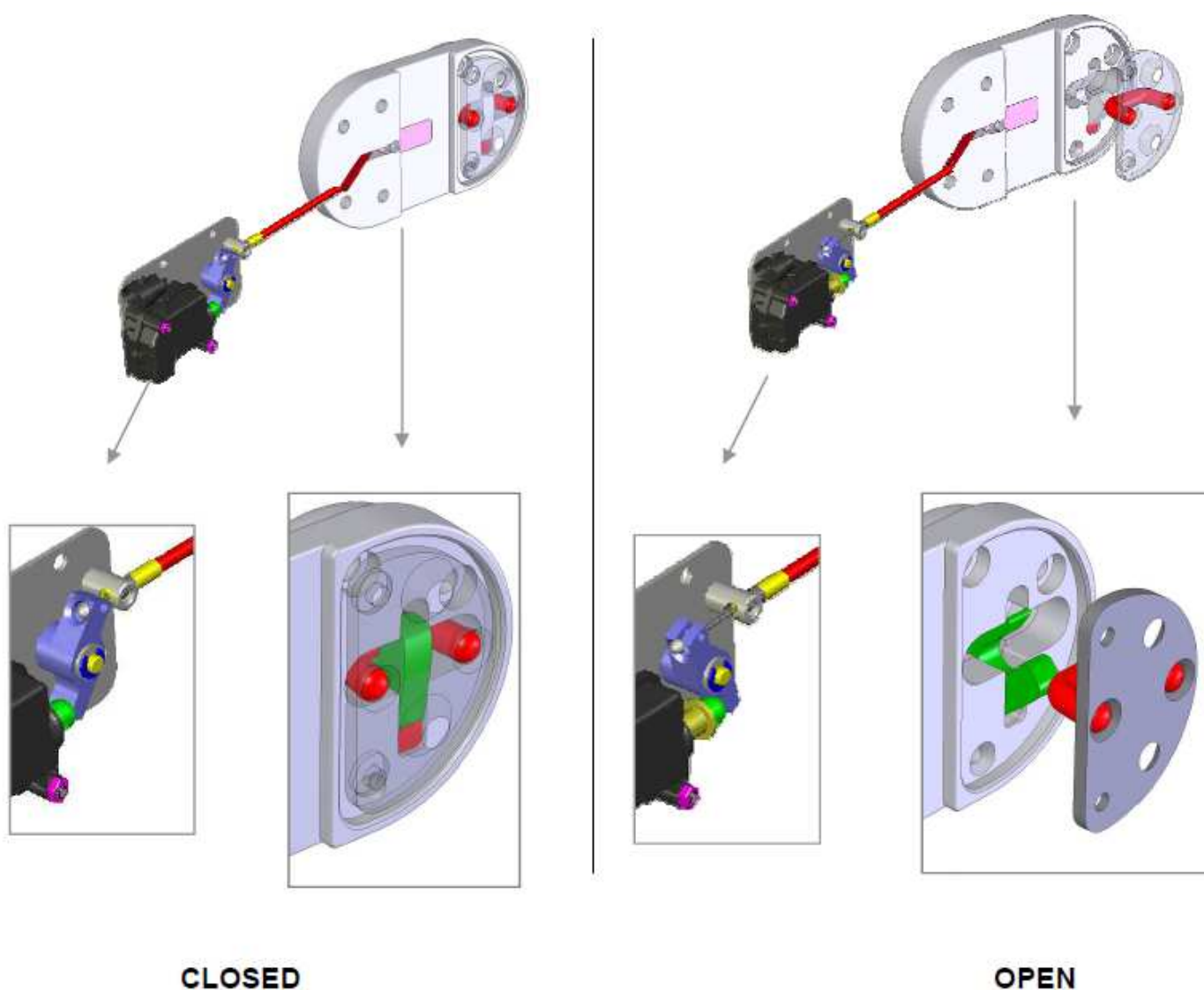
Security Instructions

The safety instructions are for the installation and use of the lock. They must always be complied with.

- 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-original components BLOCK SHAFT, will affect the characteristics of the padlock.
- The tailgate must be closed mechanically with ease.
- Installation and repair of ' electrical system requires skill and 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 SRL Unipersonale disclaims any liability for damages of any kind caused by a faulty operation , modification, or maintenance.

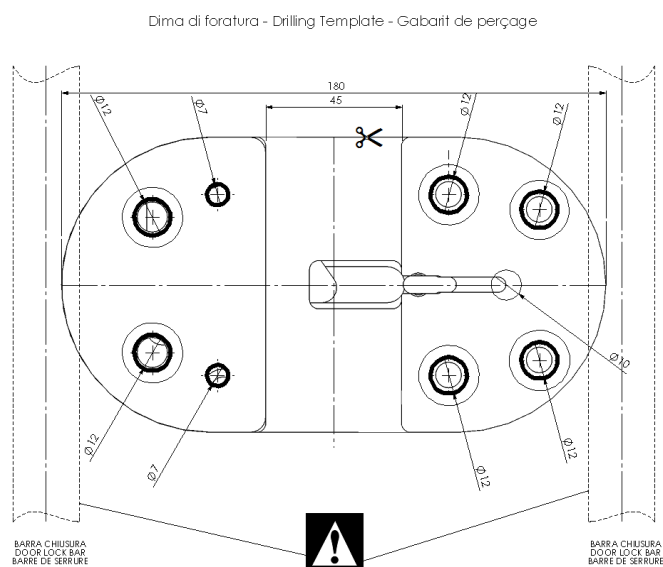
PRINCIPLE OF OPERATION

1. Device closed. The cam is in the safety position.
2. Pressing the button on the remote control to activate the motor through the flexible cable that transmits the motion to the cam which scrolls to the left.
3. The power of the motor stops when the cam has reached the stroke end and is completely released from the locking cones.
4. You can open the lock and then the door.
5. Automatically, after a few seconds of 'activating, the motor rotates in reverse and reposition the cam in a safe condition.
6. The lock reset, it will close automatically close the tailgate.



INSTALLATION

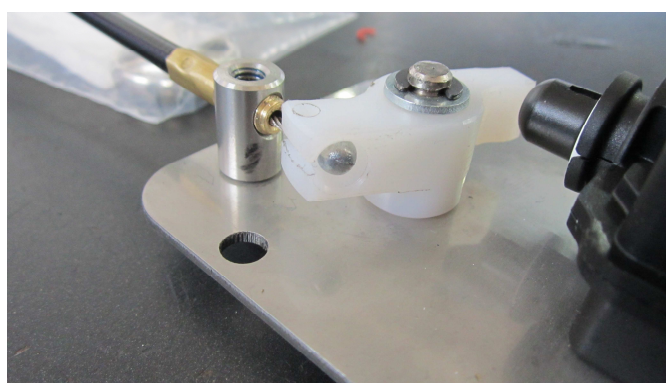
1) Follow the installation instructions of the lock using the drilling template and running the 12 mm holes for the passage of the sheathed cable which is then connected to the servomechanism.



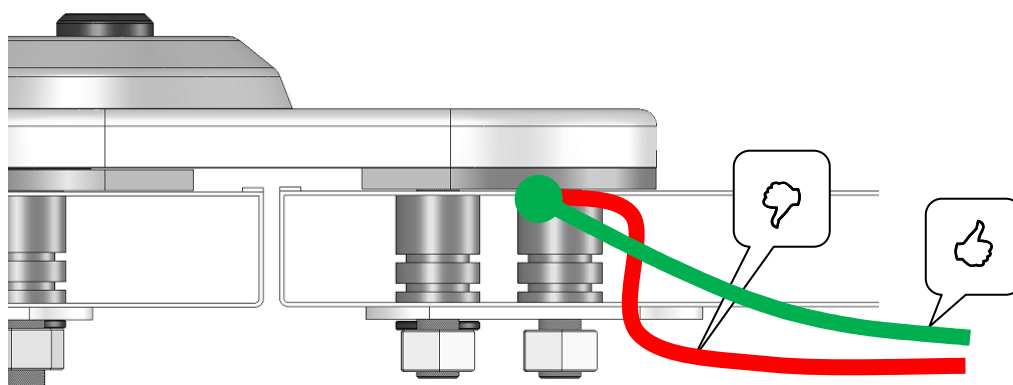
2) Combine the servo to lock by screwing the brass terminal of the sheath into the holder of the servo until the end of the thread.



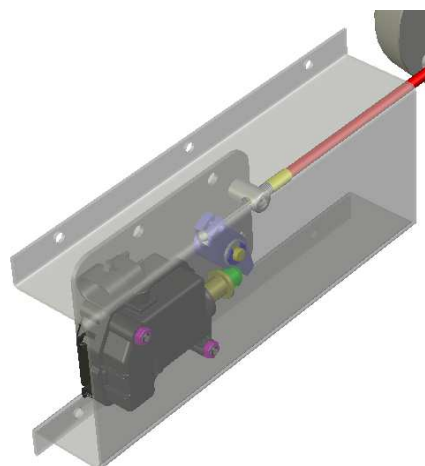
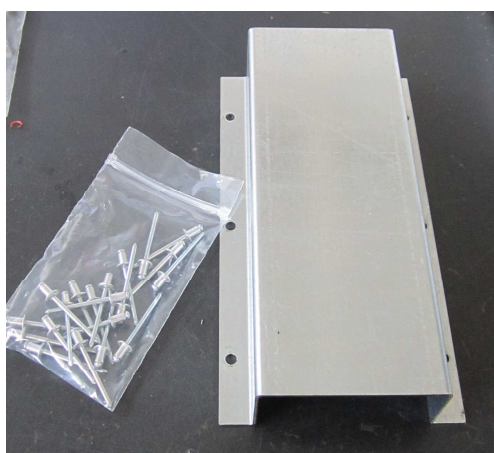
3) Insert the ball end of the cable into the housing in the white plastic..



4) Fasten the servo to the inner sheet of the door by using the holes, being careful not to bend the cable of the servo. Too many bends at the elbow causing the retreat of the docking cam, effectively reducing the tightness of the lock.



5) Protect the servomechanism from accidental impact by using the appropriate sheet metal U-shaped.



6) Make the electrical connections according to the diagram attached to the unit.

WARNING: FOR CONNECTING BATTERY AND CONTROL UNIT IS IMPERATIVE THE USE OF A CABLE SECTION 2.5 mm² (not included).

In particular locate a suitable location of the control unit remote control, trying to minimize the distances between padlock and control unit and evaluating the accessibility in the event of a subsequent maintenance operation.

Prepare a cable directly from the battery, using an upstream fuse 15 A. For the mass, however, you can use an attachment on the body, possibly close to the final position of the control unit.

In case of double lock (rear & side doors) perform a parallel connections of the motors

In addition to connecting the motors to the control unit is recommended to use a bipolar cable 2x1.

Once the connections before storing and fix the units and cables within an appropriate venue (eg. Cavity in the upright), it is advisable to perform a function test. In particular, after replacing the standard lock of the vehicle, close the door and press the button on the remote control activation. Finally, fix the control unit.

Specific linear actuator

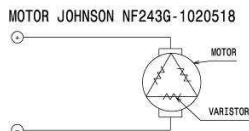
POSITION ON SUPPLY	RETURNED	Anlieferstellung
EXTENSION	PIN 1 (+) PIN 2 (-)	Ausfahren
RETURN MOTION	PIN 1 (-) PIN 2 (+)	Einfahren
ACTUATING FORCE FOR 13mm STROKE IN 400ms	$30N < F < 130N$	Stellkraft fuer 13mm Hub in 400ms
ACTUATING TIME FOR 13mm STROKE AT LOAD F_{min}	$70ms < t < 400ms$	Stellzeit fuer 13mm Hub bei F_{min}
MAX CURRENT CONSUMPTION	$< 4,3A$ (RT. 13V)	max. Stromaufnahme
THERMAL OVERLOAD PROTECTION	NO	therm. Ueberlastschutz
MANUAL ADJUSTMENT	$F < 15N$	Handverstellung
COMPONENT LIFE	100.000 CYCLES	Lebensdauer
CONSTANT TEST LOAD	$F = 0$ (ZERO) N	konstante Prueflasten
CYCLE COMPONENT LIFE	0,5s ON - 5,8s OFF, COMMUTATE	Zyklus Lebensdauer
PROTECTION GRADE	IP5K3 ACCORDING TO GMW3172	Schutzart

TECHNICAL DATA		Technische Daten
NOMINAL VOLTAGE	12V	Nennspannung
TEST VOLTAGE	$13V \pm 0.2V$	Pruefspannung
VOLTAGE RANGE	$9V < U < 16V$	Spannungsbereich
TEMPERATURE RANGE	$-40^{\circ}C$ TO $+80^{\circ}C$	Temperaturbereich
ROOM TEMPERATURE RT	$+23^{\circ}C \pm 5^{\circ}C$	Raumtemperatur RT

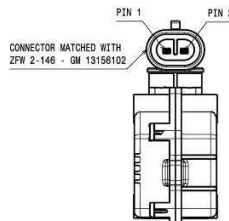
AFTER ELECTRICAL TURN OFF A SHORT CIRCUIT OF THE MOTOR IS NEEDED TEMPORARY OR CONSTANT FOR STABLE END POSITIONS

Nach dem Abschalten der elektrischen Spannung ist ein temporaerer oder andauernden Motorkurzschluss zur Stabilisierung der Endposition notwendig

MOTOR SCHEME



PINOUT SCHEME			
TRAVEL OUT		TRAVEL IN	
PIN 1	PIN 2	PIN 1	PIN 2
-	+	+	-



- Ansteuerungszeiten und Wiederholungsintervalle muessen fuer jede Fahrzeuganwendung neu festgelegt werden.
- CONTROL TIMES AND REPETITION INTERVALS NEED TO BE REFIXED FOR SEARCH VEHICLE APPLICATION AS A FUNCTION OF ACTUATOR ASSY AND LOAD.

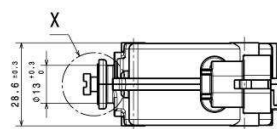
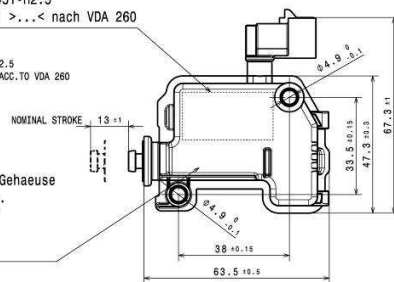
- Material Spezifikation >...<
Empfehlung nach VDA 260, an geeigneter Position angebracht
- Um die Funktion des Stellers zu garantieren muss der Motor mit einem Widerstand von max. 500mΩ nach Ablauf der Ansteuerzeit fuer die Dauer von min. 500ms kurzgeschlossen werden.
- Die Markierung kann von der anderen Seite vom Aktuator sein wegen Montageprozess.
- SPECIFIED MATERIAL ABBREVIATION >...<
TO VDA-EMPFEHLUNG 260, ATTACHED IN SUITABLE POSITION
- IN ORDER TO ENSURE THE FUNCTION OF THE ACTUATOR THE MOTOR HAS TO BE SHORT CIRCUITED WITH A RESISTOR OF MAX 500mΩ AFTER EXPIRATION OF THE TRIGGERING TIME FOR A PERIOD OF MIN. 500ms
- THE MARKING ON PARTS CAN BE ON THE OTHER SIDE OF THE ACTUATOR DUE TO ASSEMBLY PROCESS

Kennzeichnung:
Warenzeichen
Schrift: DIN 1451-H2.5
Werkstoff-Code: >...< nach VDA 260

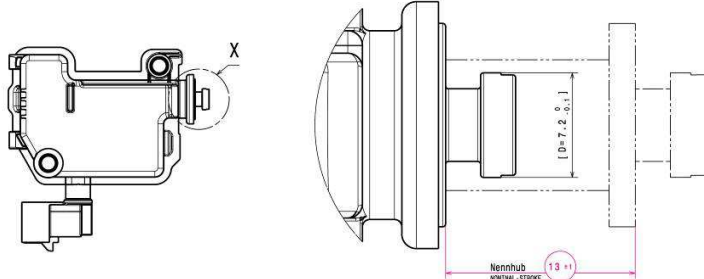
IDENTIFICATION:
TRADEMARK
LETTERING: DIN 1451-H2.5
MATERIAL-CODE: >...< ACC. TO VDA 260

Bedruckung:
direkt auf das Gehaeuse
Kunden-Teile-Nr.
Fertigungsdatum
Uhrzeit
MADE IN ITALY

PRINTING:
DIRECT ON HOUSING
CUSTOMER-PART-NO.
PRODUCTION DATE
TIME
MADE IN ITALY



X 5:1



7*	Motor	---	---
6	Stecker	CuZn33 H115 EN10204	---
	TERMINAL	WZ2.10H/2 TIN PLATED	
5	Steckergehaeuse	PA6-GF30	schwarz
	CONNECTOR		BLACK
4	Mutter	PBT	natur
	NUT		NATURAL
3	Zahnrad	POM	natur
	GEARWHEEL		NATURAL
2	Gehaeuse-Unterteil	PA6-GF30	schwarz
	HOUSING LOWER PART		BLACK
1	Gehaeuse-Oberteil	PA6-GF30	schwarz
	HOUSING TOP		BLACK
Pos. Benennung	Werkstoff		Farbe
	NAME	MATERIAL	COLOR

* innenliegend/inside

Maintenance and care

- Check that the safety components are properly installed and check for wear. If necessary, retighten the locking pins and replace defective components.
- At regular intervals (at least once every three months), check the operation of mechanical locking and handling of the lock, for example, 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 mechanical and electronic functioning .
- 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 they are not corrosive.
- In order not to compromise the corrosion protection of parts, use only neutral detergents and cleaning products, free of abrasives.
- The electronic components must be dry cleaned only.

Precautions and directions for proper use

- 1 . Use the wiring properly sized (see instructions) .
- 2 . Take the +12 V only and exclusively by the battery of the vehicle;
- 3 . Drill the holes of the size specified in the work instructions;
- 4 . Protect the servo from any impact or contact with the transported goods .
- 5 . Make sure that the cable does not have excessive bends .
- 6 . Always check the alignment of the cones in vertical and horizontal with the respective conical seats of the armor .
- 7 . Ensure the free flow of the cam lock using the key ;
- 8 . During and after installation , never leave the keys and remote lock inside the cargo area ;
- 9 . Lubricate the lock every two months using a spray water repellent, anti-corrosive , lubricant, detergent , degreaser that does not contain additives that can attract dust or dirt (es.WD40 , no Svitol) .
- 10 . When washing the vehicle , do not spray water directly at the lock ;
- 11 . A proper use of the lock that prevents an unnecessary and arduous operation requires that the lock is opened (with the key or remote control) before you open the tailgate handle .