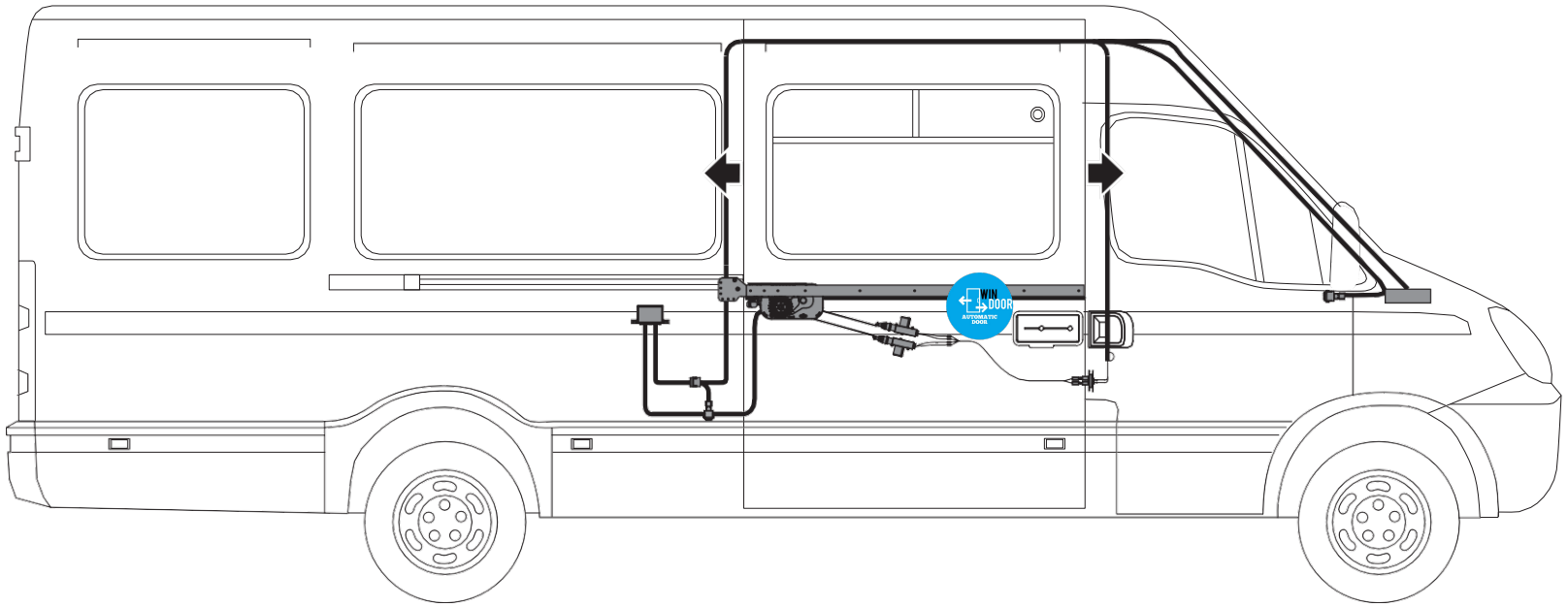
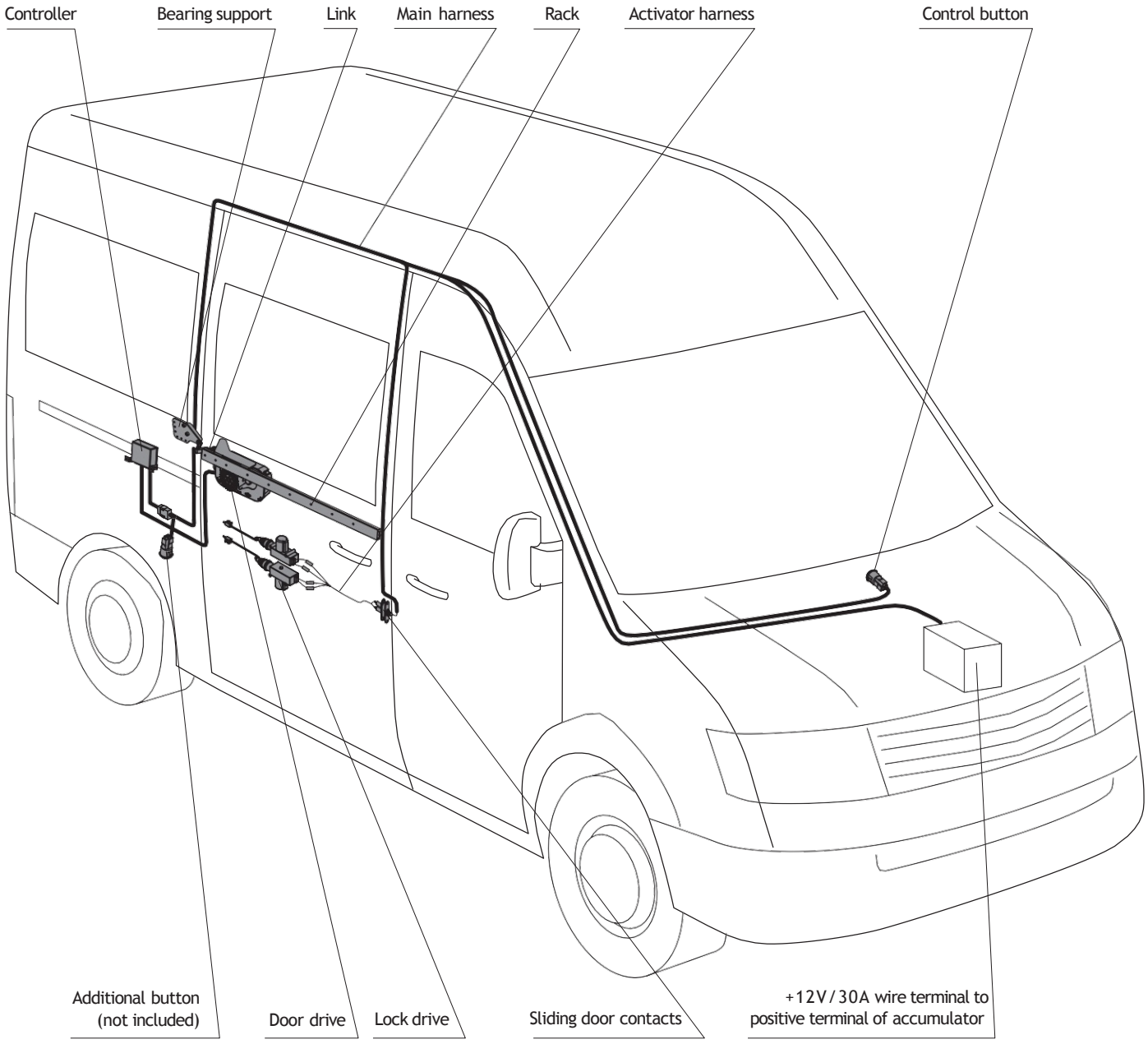
WIN-DOOR® AUTOMATIC SIDE DOOR SYSTEM

INSTALLATION MANUAL

IVECO DAILY 2006 - 2014.





This model is suitable for opening and closing sliding doors of Iveco Daily vans.

Disposition of assemblies and parts of the drive is shown on the model of a standard van.

NOTE

This manual describes installation of the WIN-DOOR drive with maximum specifi- cations. If you install a door drive without any additional options, just omit unnecessary paragraphs of the manual.

BASIC TECHNICAL CHARACTERISTICS

Power consumption (nominal)	70W
Power consumption (maximum)	250 W
Time of door opening (depends on the width settings)	2 sec.
Time of door closing (depends on the width settings)	2 sec.
External temperatures	-25 - +40
Maximum allowed angle of bus ascent when the door will close	10%
Resource	Not less than 150 000 opening/ closing cycles

NOTE

Long-lasting and trouble-free operation of WIN-DOOR drive depends on the quality of instal- lation. That is why installation is carried out in specialized workshops of WINDOOR representatives.

OPERATING CONTROL

WIN-DOOR drive is an electromechanical device which operates being connected to the in-vehicle net- work. The drive consists of two main parts: lock drive and door drive. The lock drive opens the lock and the door drive opens and closes the door. Drive control can be carried out by means of

- **Main control button**

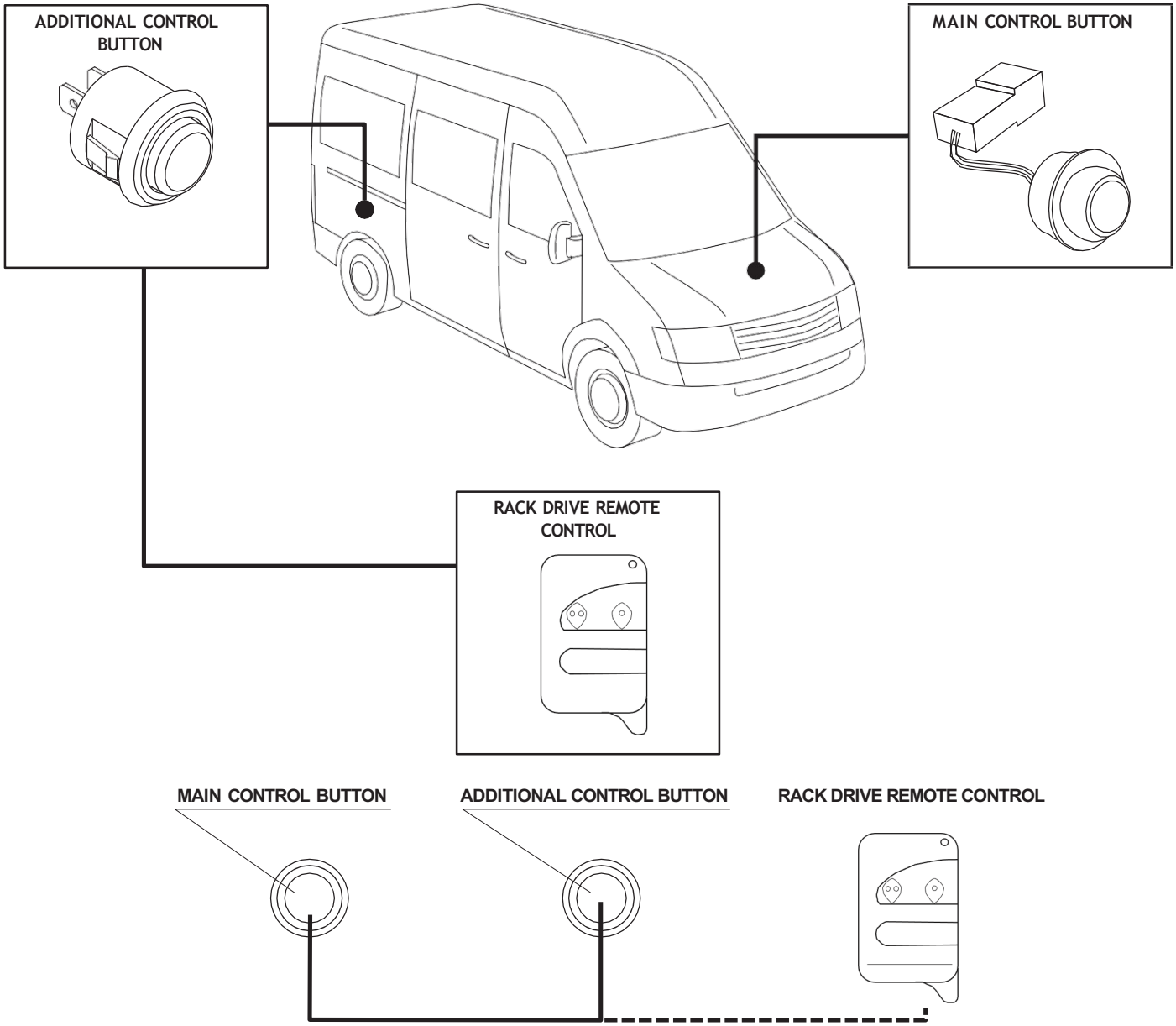
which controls the door functions and the system settings

- **Rack drive remote control**

which controls the door functions.

MOTOR DRIVE FUNCTIONS:

- **Opening and closing the door**
- **Automatic roll-back of the door**
- **Door stopping**
- **Sound signal**
- **Operating mode with and without fixing the sliding door**
- **Adjustment of the opening width**



PRECAUTIONS

Drive installation involves refining of existing body parts of a van. All body parts of a mini- bus are made of sheet metal, so there is a high probability of being cut by sharp edges appearing after refinement or by sharp parts of mechanical hand tools. During drive installation follow safety procedures while working with mechanical hand tools, blunt sharp edges of drilled holes . Use only tools in good working condition. During installation keep your working place clean, especially in the bus saloon. Before starting installation prepare all the necessary tools and parts, take away unnecessary things.

Trouble-free operation, reliability and operating life of the drive depend on precise accomplishments of the instructions given . It also depends on the precision of relative disposition of drive parts and assemblies. Before drilling fixation holes put the marks for drilling thoroughly, check correct disposition of a concrete part or assembly and only after that drill the holes .

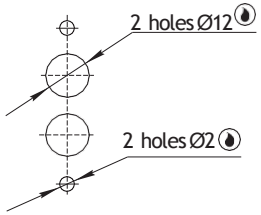
This drive is an electromechanical device, so alongside metalwork there is also wire installation and connection to power supply. That is why electrical safety procedures must be followed. While connecting contacts, keep your hands and working place clean. This will provide reliable contacts connection and trouble-free operation of the drive as a whole .

TOOL LIST

Clip withdrawal tool.....1
Head stock 10-17 mm.....1set
Riveter 1
Riveter for pull-out nuts GESIPA GBM 10 1
Centre punch 1
Combination wrenches 1set
Metal ruler 1
Hammer 1
Hexagon wrench tools 1
Star wrench tools Torx 1
Knife 1
Flat tip screwdriver 1
Cross tip screwdriver 1set
Pliers 1set
Wire for tightening ..... 3m.
Drill bits 2.5; 3.2; 5; 6.5; 9; 1
Step-shaped drill 4-24 mm 1
Slack adjuster 1
Electrical extension cord 1
Lamp 1
Sliding calipers 1
Electric drill 1
Hack saw 1
Multimeter 1
Sidecutter 1
Rivet nut 15
Rubber solvent petrol ..... 1 bottle
After drilling holes burrs are left on hole edges and paint coating of the body is inevitably damaged. In some places which require additional processing the following symbols will be used

— Remove burrs off the edges
— Blunt sharp edges
— Coat the edge with rust-proof liquid

Example: coat the edges of the holes with rust-proof liquid



2.1 DOOR ADJUSTMENT

Before installing the drive, adjust the van door because its adjustment influences the drive operation.

2.1.1 Wash out the door carriage guides with petrol and wipe them with dry rags.

2.1.2 Wash out the door latch mechanism, dry it and lubricate with WD-40.

2.1.3 Remove door tenons.

2.1.4 Adjust the door position in relation to its doorway (it is adjusted with the carriages).The closed door must not sag or go inwards van overly.

2.1.5 Adjust the latch tenon and latch bracket on the rear post in such way that it provides the minimum possible closing speed.

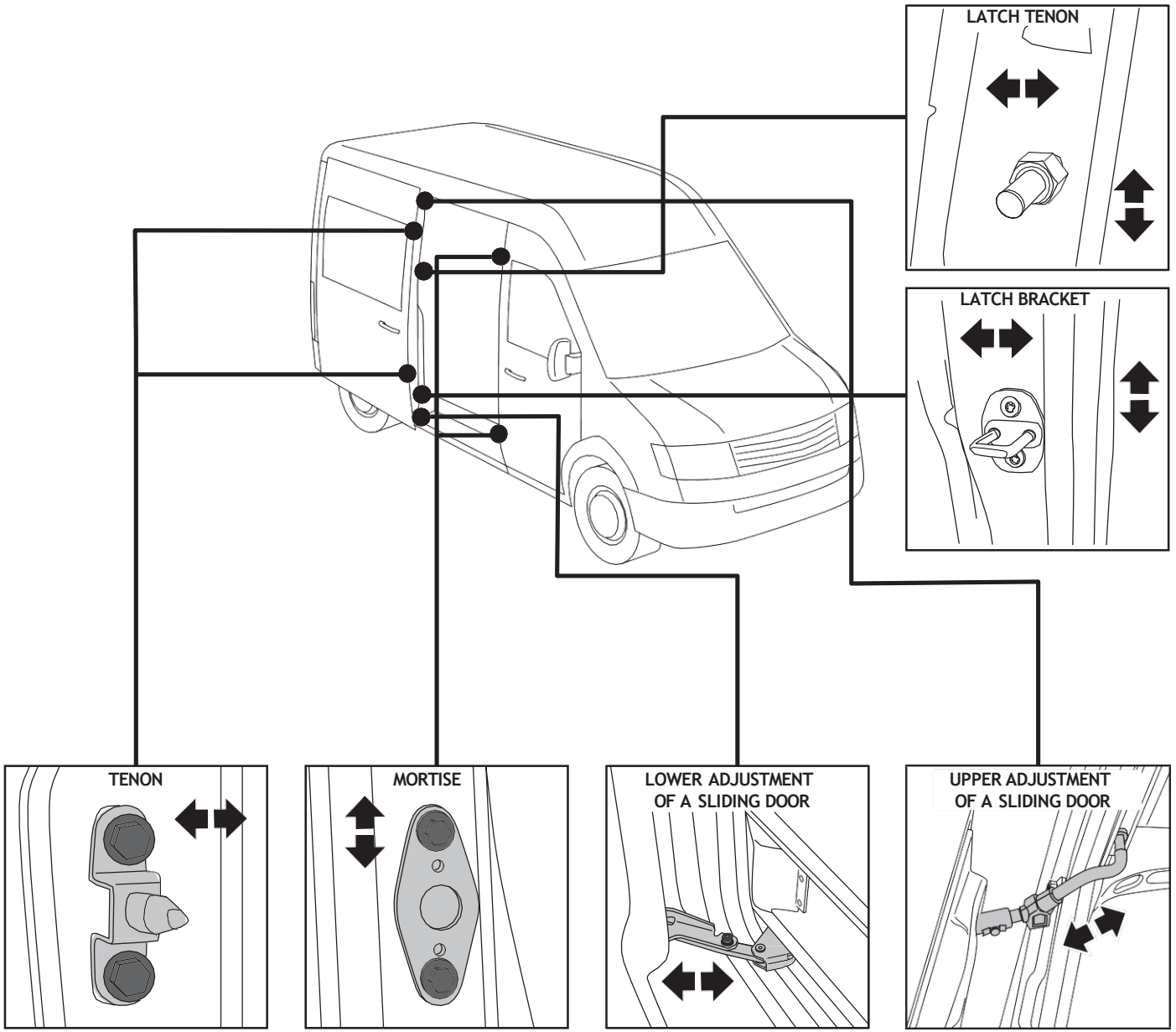
2.1.6. Check the sealing material when the door is closed. The sealing material must not shrink overly. Otherwise remove the sealing material and unbend its edge in the compressed places.

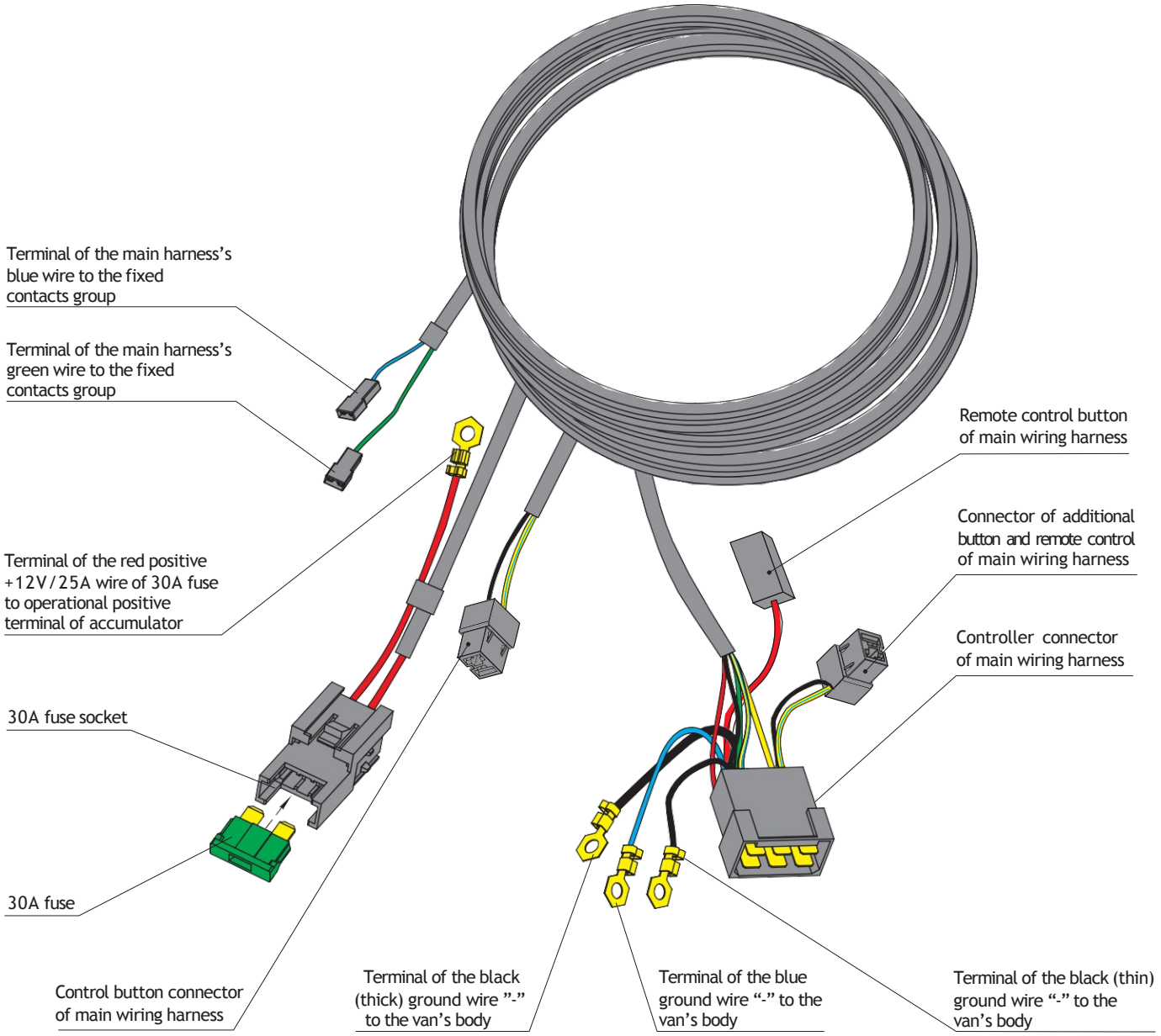
7. Install the door tenons, adjust their position.

8. Open and close the door when the bus is motionless.

9. Make sure that the sliding door retainers are in their positions and have no any visible damage or wear. Do not use the van without retainers or with damaged sliding door retainers.

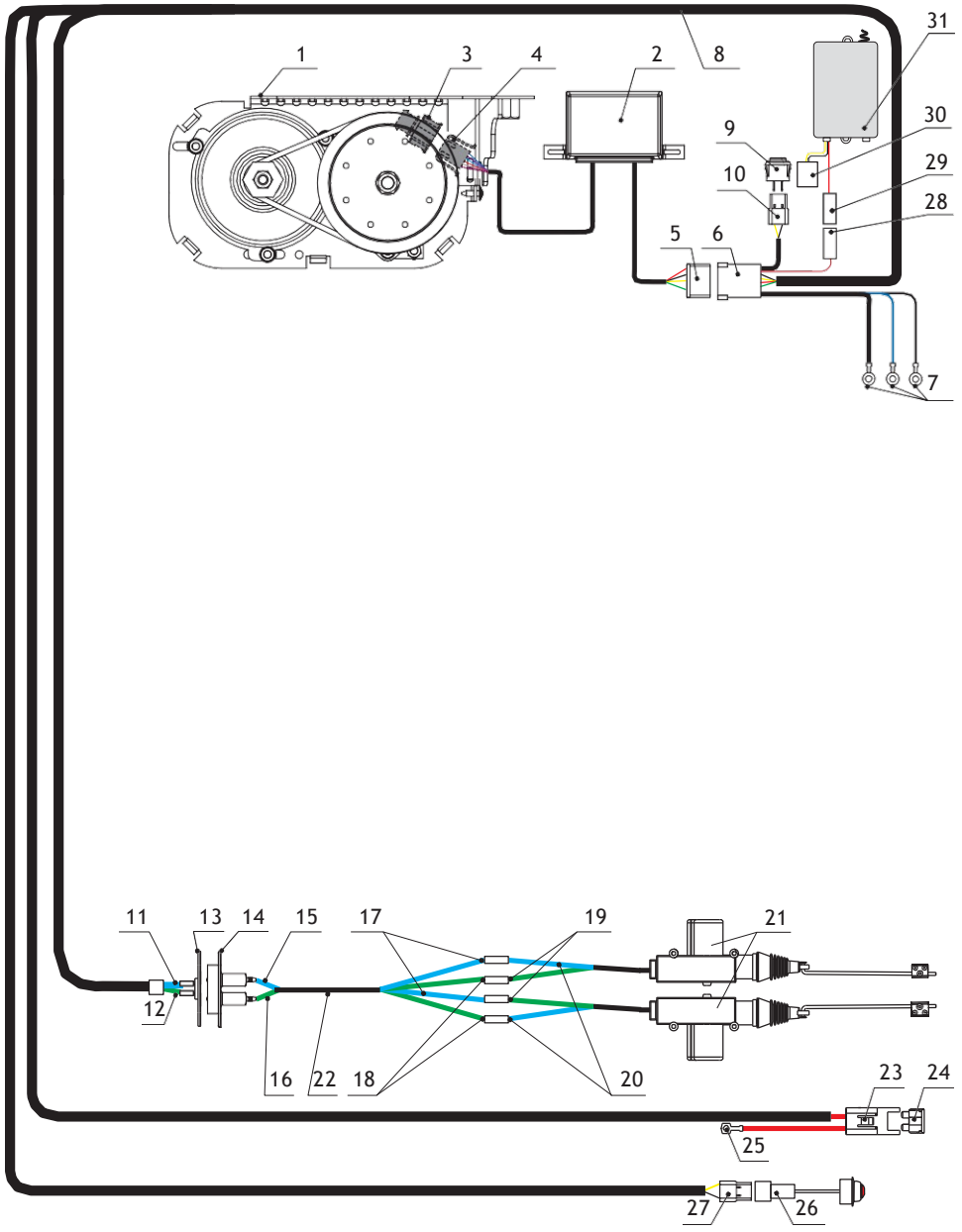
2.1.10 Check the upper, middle and lower door adjustments. The door must go along the door guide easily without any jerks and knocks, it must open and close freely. The correctly adjusted door in a closed position must come to the sealing material tightly having the same equal gaps.

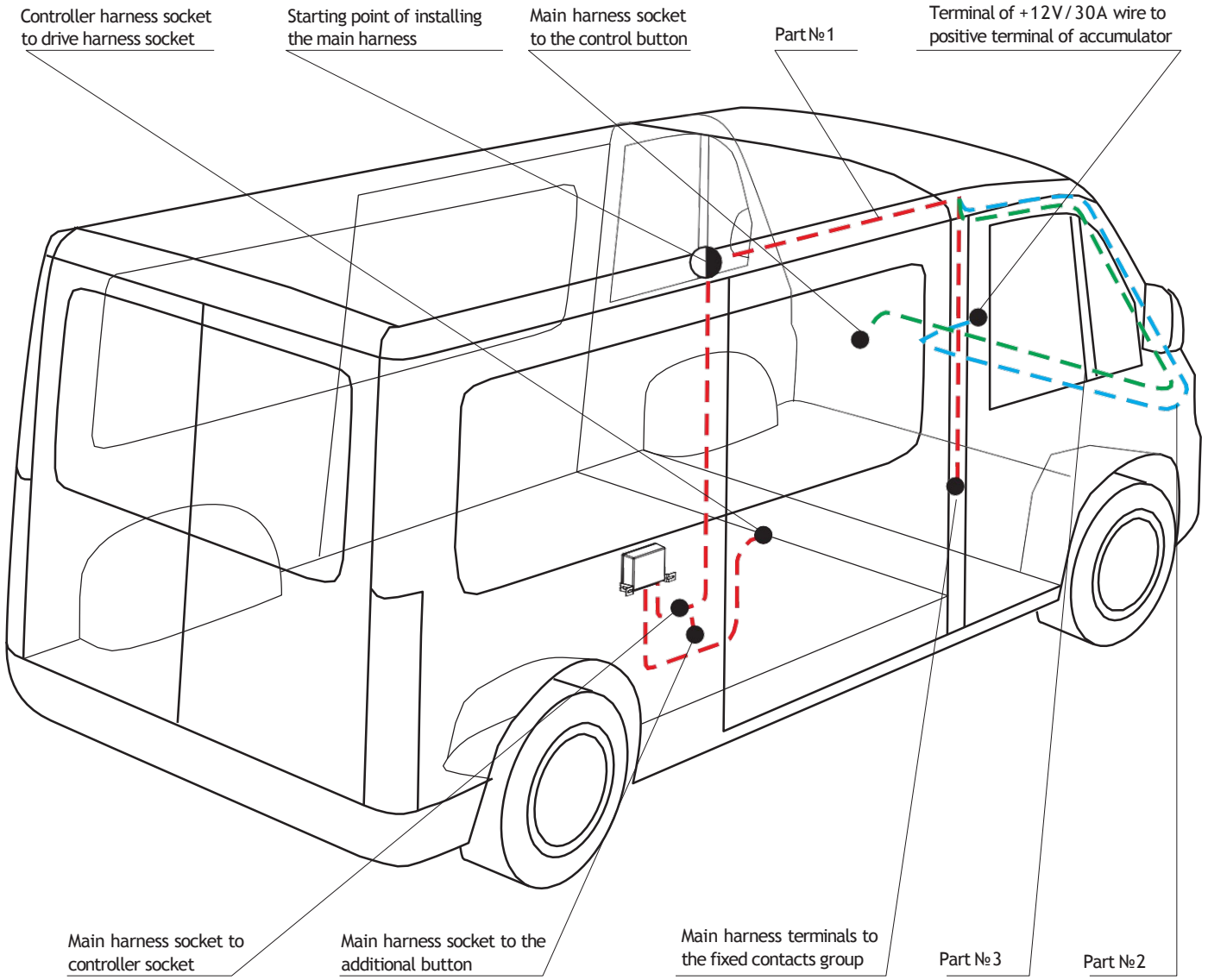



Terminal of the main harness's blue wire to the fixed contacts group
Terminal of the main harness's green wire to the fixed contacts group
Terminal of the red positive +12V/25A wire of 30A fuse to operational positive terminal of accumulator
30A fuse socket
30A fuse
Control button connector of main wiring harness
Terminal of the black (thick) ground wire "-" to the van's body
Terminal of the blue ground wire "-" to the van's body
Terminal of the black (thin) ground wire "-" to the van's body
Remote control button of main wiring harness
Connector of additional button and remote control of main wiring harness
Controller connector of main wiring harness

2.3 CONNECTION DIAGRAM OF RACK AND PINION DRIVE

2. WIN-DOOR Drive
2. Controller
3. Drive harness connector to controller wiring harness(black, red, grey-and-black, blue-and-black, grey-and-white, red-and-white)
4. Controller connector
5. Controller connector
6. Main wiring harness connector
7. Terminals of the ground wires "-" to the van's body
8. Main wiring harness
9. Additional button
10. Additional button connector and remote control
11. Terminal of the main wiring harness's blue wire to the fixed contacts group
12. Terminal of the main wiring harness's green wire to the fixed contacts group
13. Fixed contacts group
14. Movable contacts group
15. Terminal of the activator blue wire to the movable contacts group
16. Terminal of the activator green wire to the movable contacts group
17. Terminal of the activator blue wire
18. Terminal of the activator green wire
19. Terminal of the activator green wire
20. Terminal of the activator blue wire
21. Lock drive
22. Actuator wiring harness
23. Terminal of 30A fuse red wire
24. 30A fuse
25. Terminal of +12V red positive wire of 30A fuse to operational positive terminal of accumulator
26. Main control button
27. Main control button connector
28. Main wiring harness connector (red)
29. Remote control wiring harness connector (red)
30. Remote control wiring harness connector (yellow-and-blue, black)
31. Remote control





NOTE

All wires must be protected and firmly attached to avoid any breakage, abrasion or chafing.

When installing the main harness use steel wire to conceal the harness in the hidden places. Disposition of the main harness is shown in the picture. Be careful while installing the harness: insulating material must not be damaged.

Begin installing the main harness at the starting point as shown in the picture in the following order:

- Part № 1
- Part № 2
- Part № 3

To place the control button drill a hole Ø 23 mm on the dashboard where you find it convenient to use. Remove burr from the edges and blunt sharp edges. Insert the control button into the hole having connected it to the main wiring harness connector (fig. 3).

NOTE

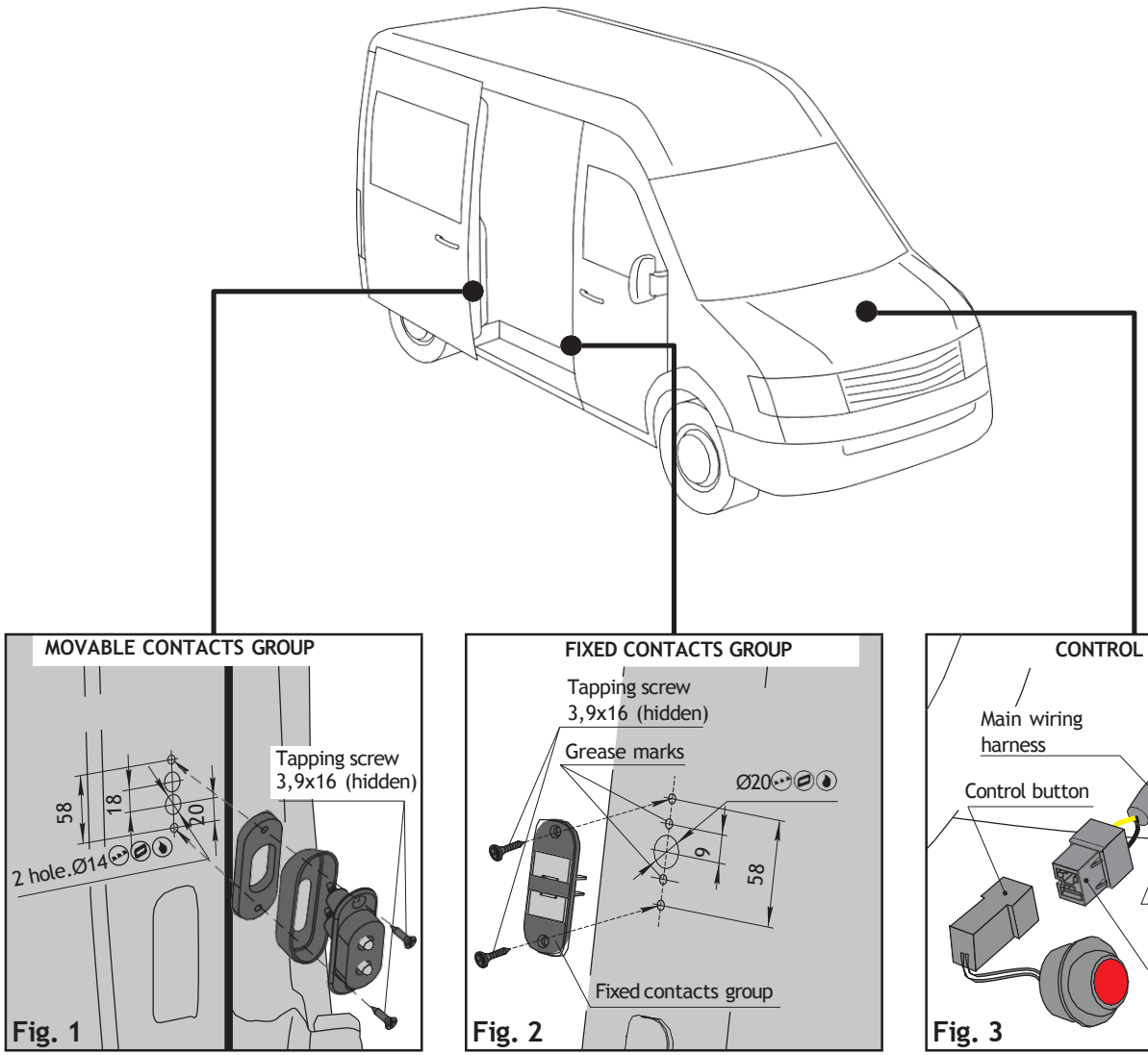
The movable contacts and fixed contacts groups must be located in such a way that «Autodoor» inscription is positioned on top of it.

Drill 2 holes Ø 14 mm (fig. 1). Connect the main wiring harness of the actuator to the movable contacts group as follows: connect the green actuator wire to the lower contact of the movable contacts group, connect the blue wire to the upper contact as shown on page 9 and 13. Fix the movable contacts group with 2 tapping screws 3,9x16 using the contacts separator (fig.1).

Apply grease lubricant on the contacts of the movable group. Open/close the door. Using the marks left by the grease on the pillar, mark and drill 2 holes Ø 20 mm (fig. 2).

Connect the green wire terminal of the main wiring harness to the lower terminal of the fixed contacts group and the blue one to the upper terminal as shown in scheme on page 9.

Secure the fixed contacts group with 2 tapping screws 3,9x16 (fig.2)



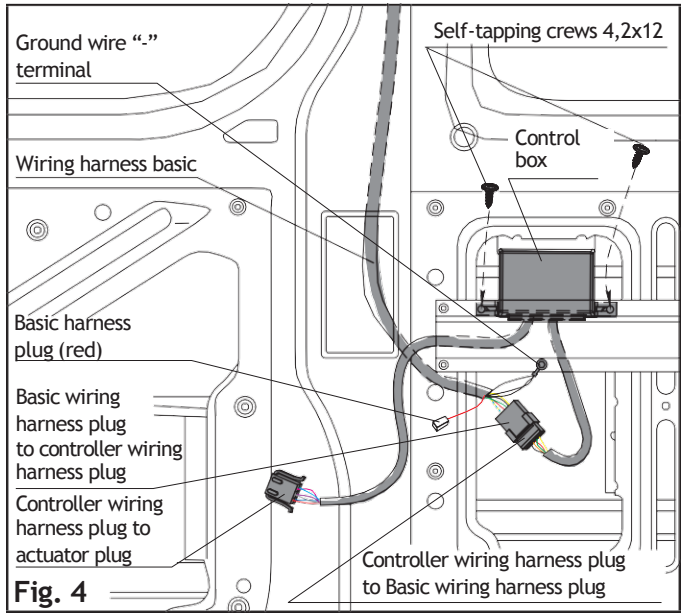


Fig. 4

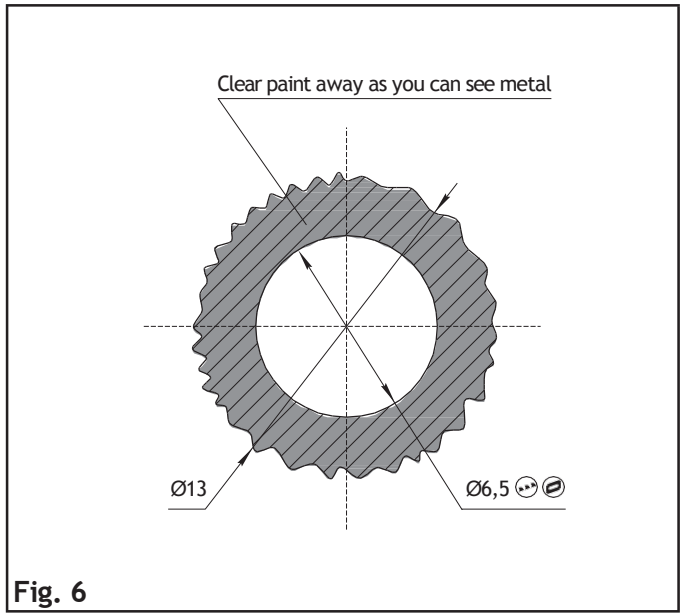


Fig. 6

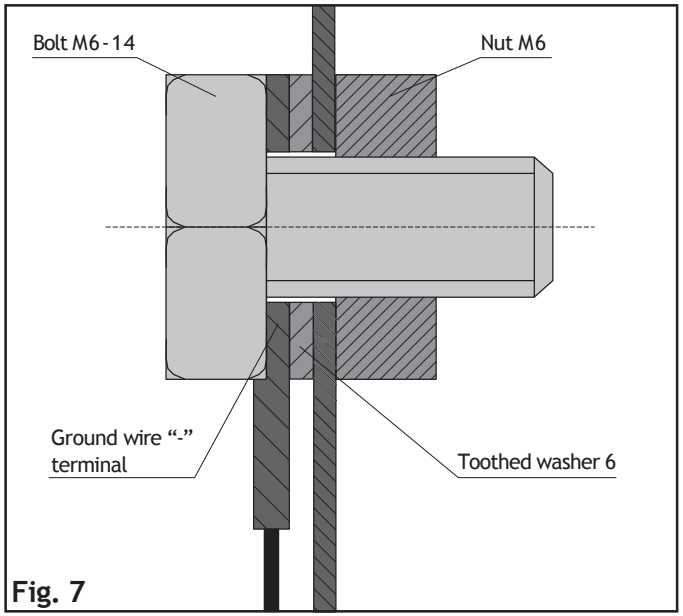


Fig. 7

In the car sidebar place and screw up a controller with two self-tapping screws 4,2x12 from the hardware bag as shown in fig. 4

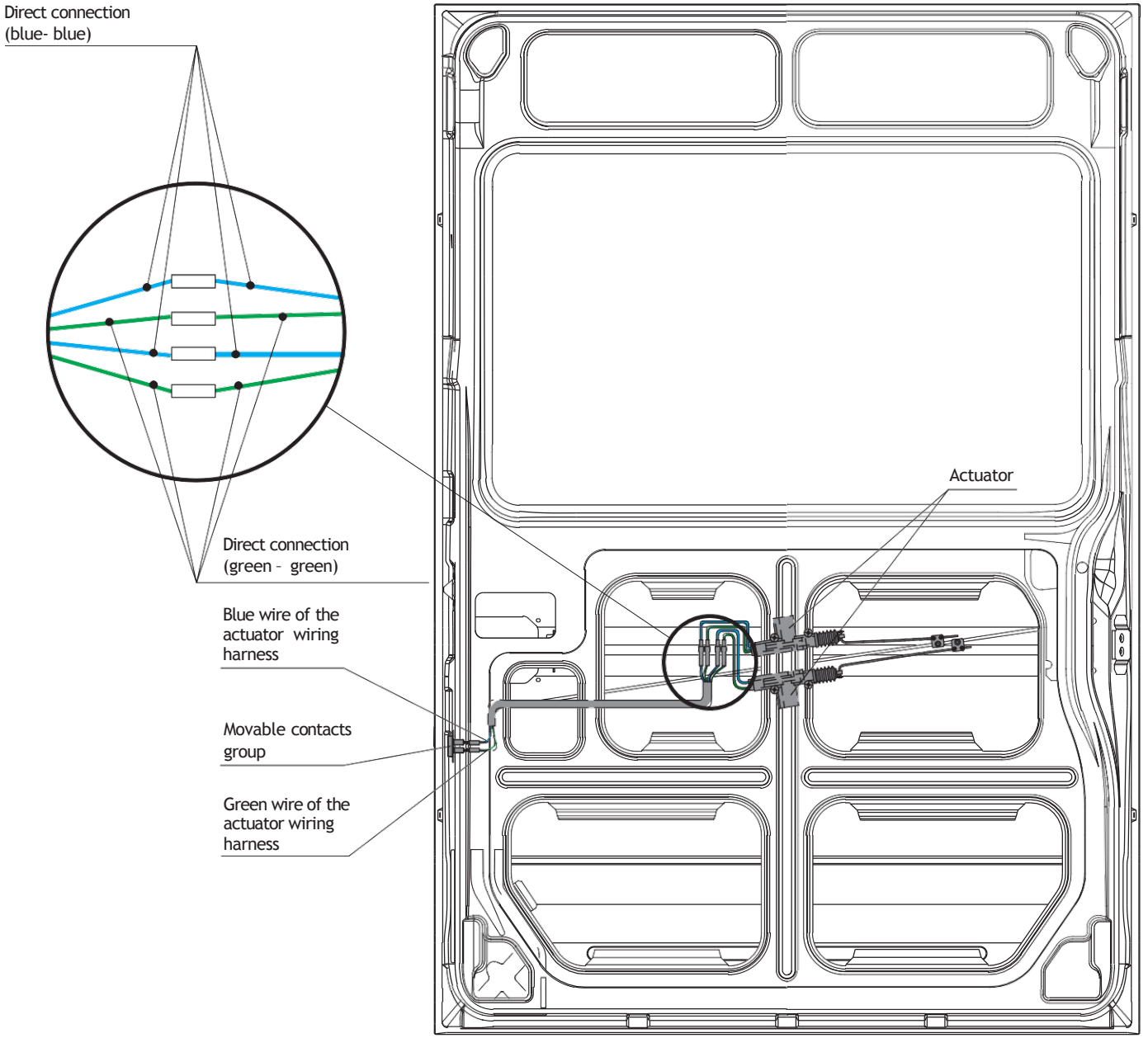
To fix ground wire «-» terminals it is required to make a hole with diameter **Ø** 6.5 mm in any place of the car inside bar, next to the controller as shown in fig. 4 and fig. 5. Remove the paint around the hole completely so you can see metal in order to provide a good contact as shown in fig. 6. With the bolt M6x14, toothed washer and the nut M6 from hardware bag fix the ground wire "-" terminals as shown in fig. 7. The toothed washer must be between terminals and a car body. After tightening an M6 screw, apply the rust proofing on the surface with damaged rust-proofing paint.

⚠ NOTE ⚠

It is necessary to place the controller so as working hole looked down to prevent the controller card from ingress and accumulation of condensate (v. fig. 4)

NOTE

If you don't have the actuator installed, then do not detach the locking mechanism counterpart from C-pillar (in avoidance of door slack and extra loading on a drive body). Door locking mechanism has to be fixed as opened.



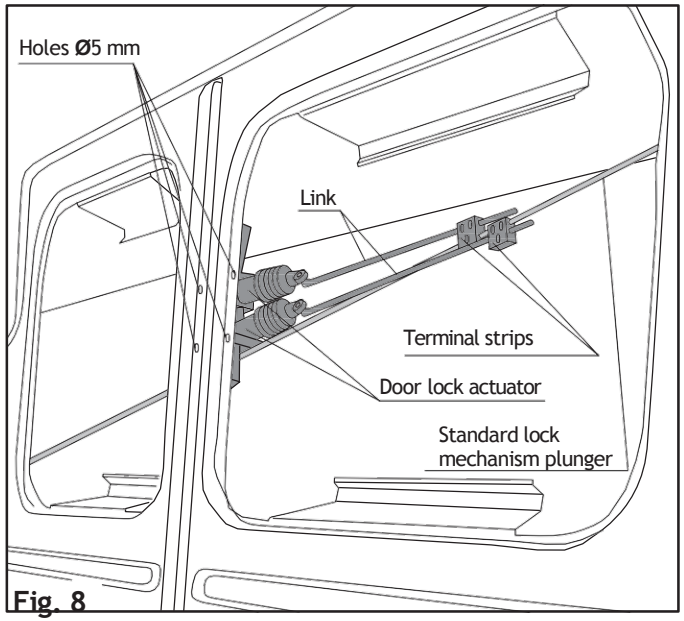


Fig. 8

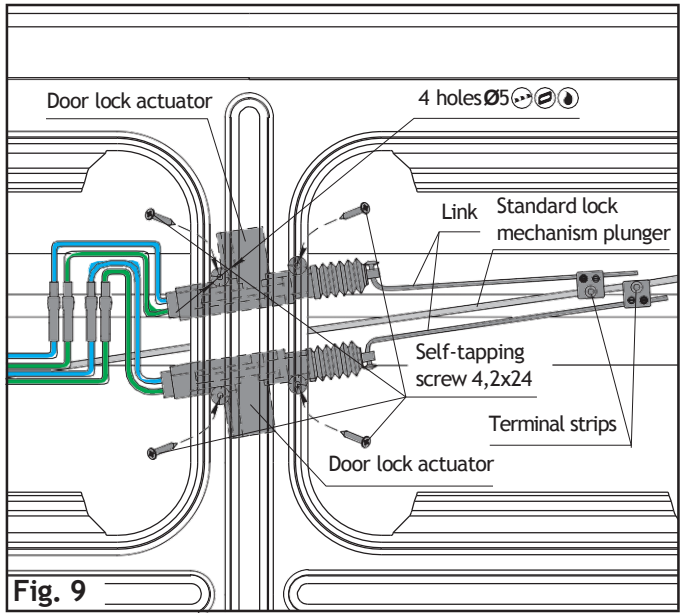


Fig. 9

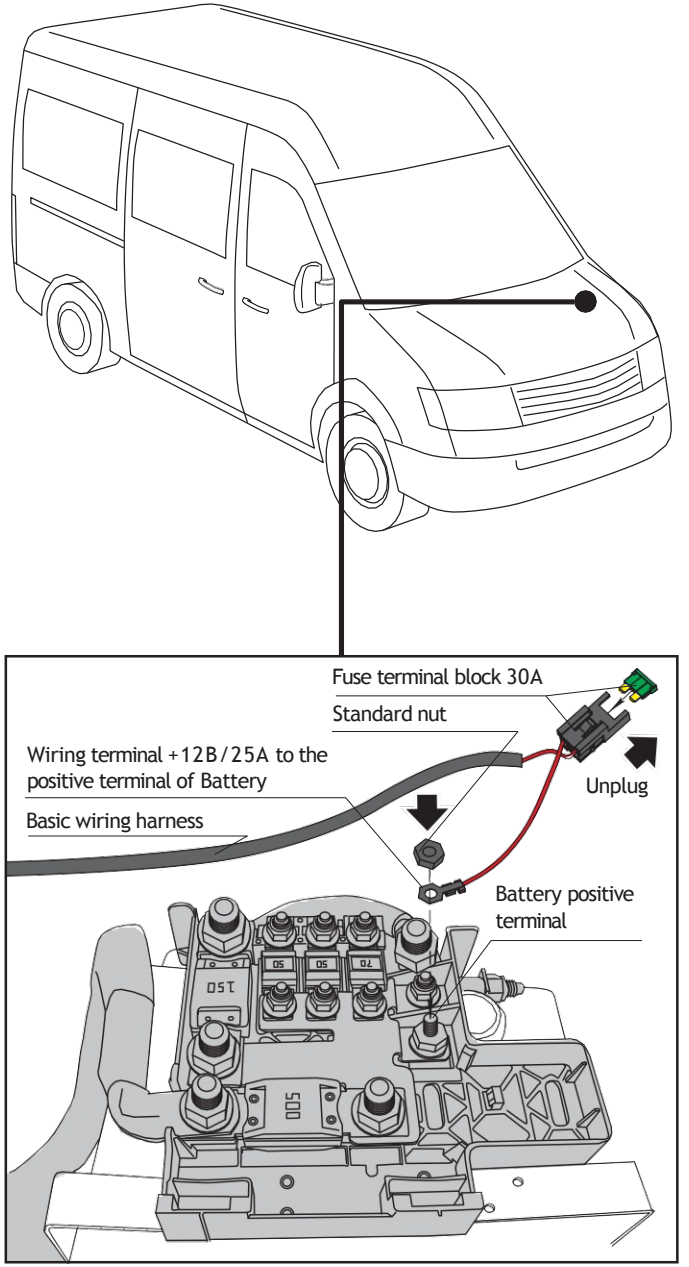
Drill four holes Ø 5 mm according to the marking. Burr the edges, round-off sharp edges and spread acid-free rust-preventing liquid over the edges. Install top and underneath drives and fix them with Self-tapping screw 4,2x24 from the metal ware. Fix the terminal strips on the rod. Pull out the standard lock mechanism plunger as far as it will go and tighten screws on the terminal strips (fig.8, 9).

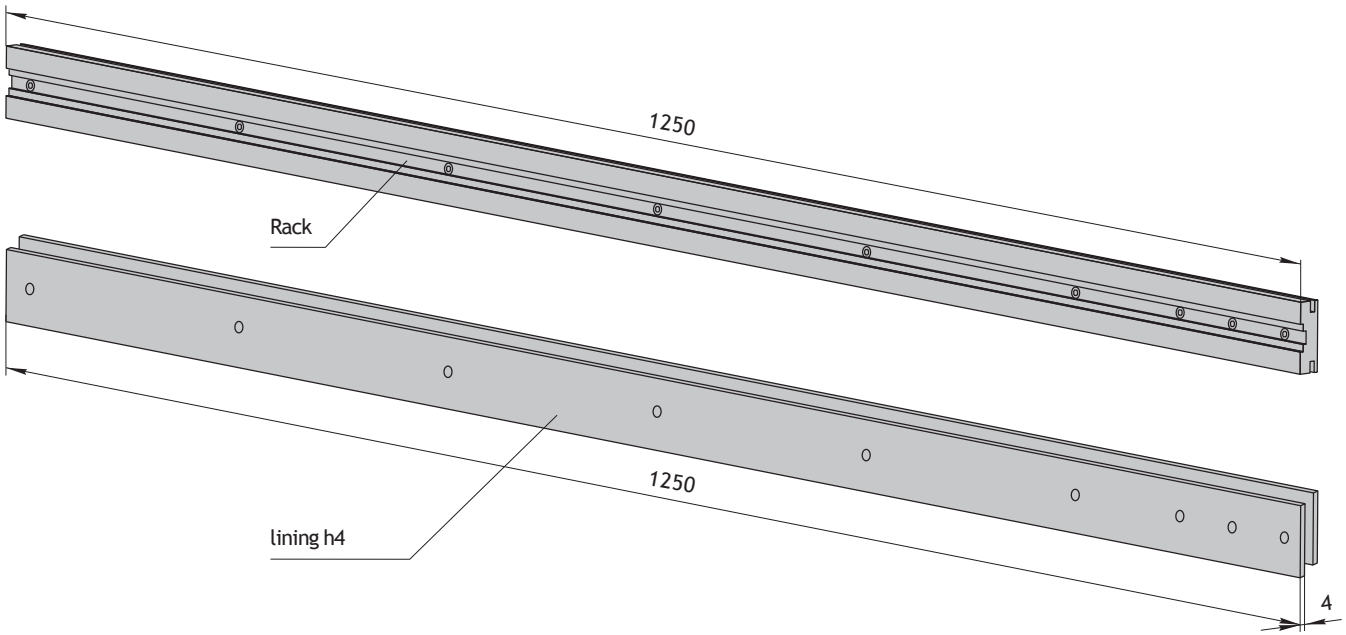
Connect two terminals of green wires of top and underneath actuators to the terminals of green wires of the actuator wire harness, and two terminals of blue wires of top and underneath actuators to the terminals of blue wires of the actuator wire harness correspondingly as shown at pages 9 and 13.

Connect the wire terminal +12V of the basic wiring harness to a free positive terminal of the battery, which is under a driver's feet. Fix the wire terminal +12V of the basic wiring harness with the standard battery nut. Before connecting, please, take the fuse 30A out of the fuse terminal block.

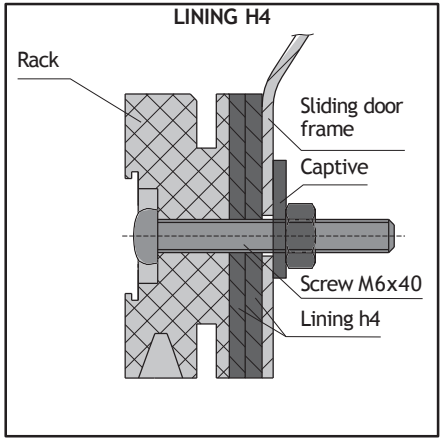
ATTENTION

Connect the wire terminal +12V/25A of the general wire harness only to an unconnected positive battery terminal, not to a negative one, otherwise door drive pack can burn down.





It is recommended to lay two linings H4 between the rack and the sliding door panel.



3.2 INSTALLATION OF THE RACK ON THE DOOR

At this page the suggested place for installation of the rack on the door is shown.

Close the door and remove the door padding.

Put the rack to the suggested place as shown in the figure. Using the rack mark up the centers of future fixing holes.

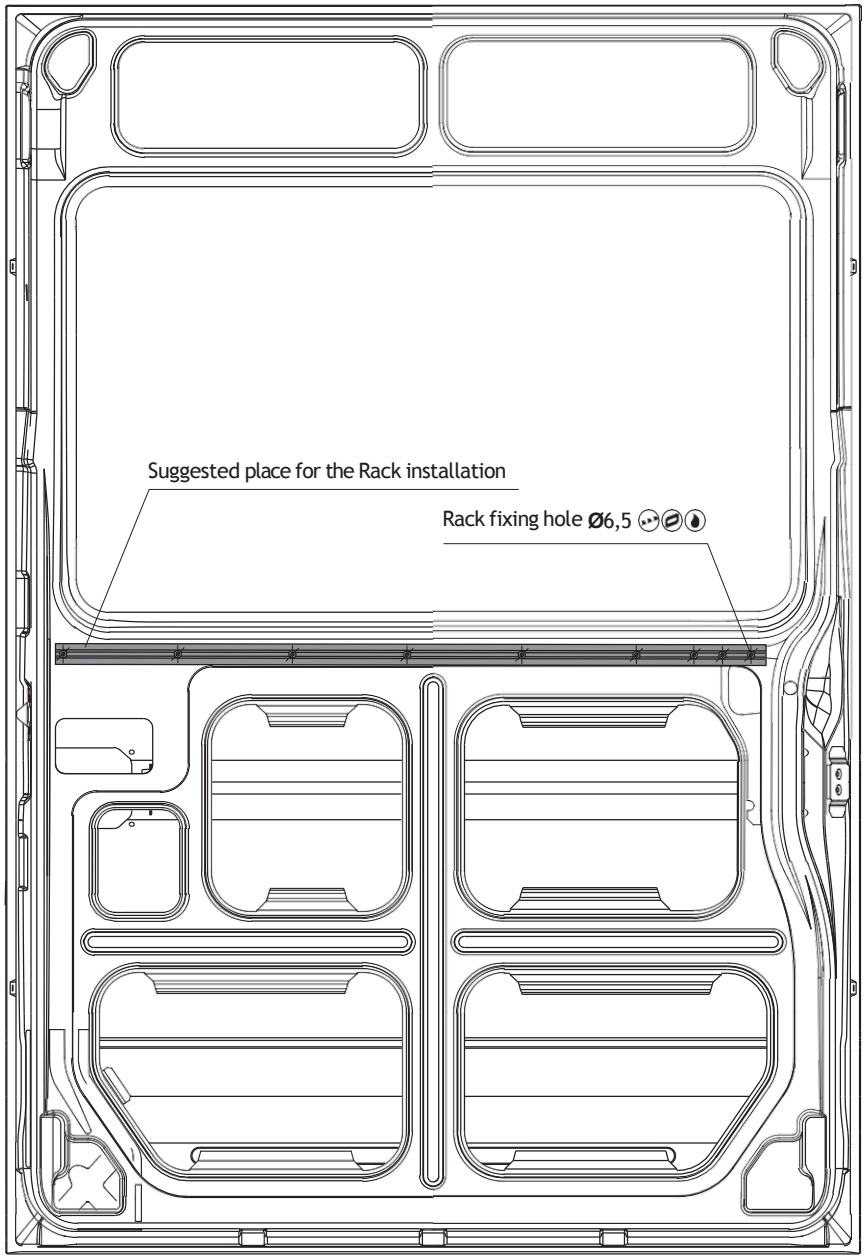
ATTENTION

Mandatory fixing holes are the rear four holes and the front one.

Drill the holes with diameter **Ø** 6.5 mm. The holes must be in one line.

Attach the rack and the linings using a hardware bag:

- With screws M6x40
- With a captive chuck plate



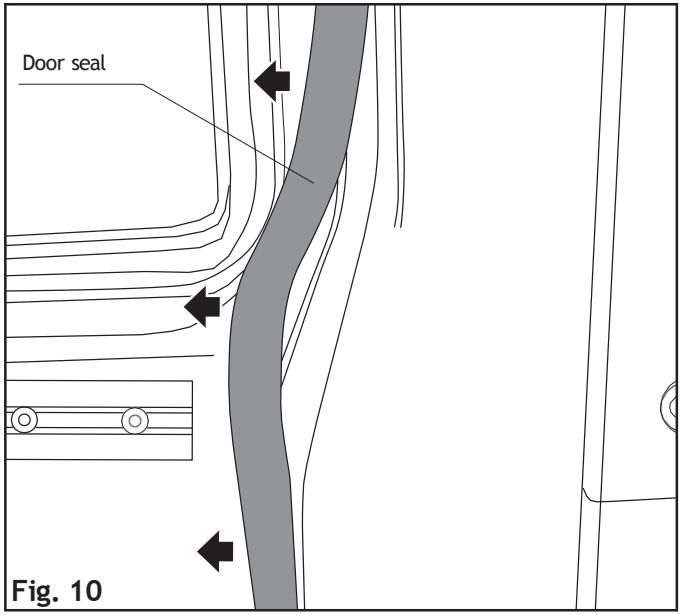


Fig. 10

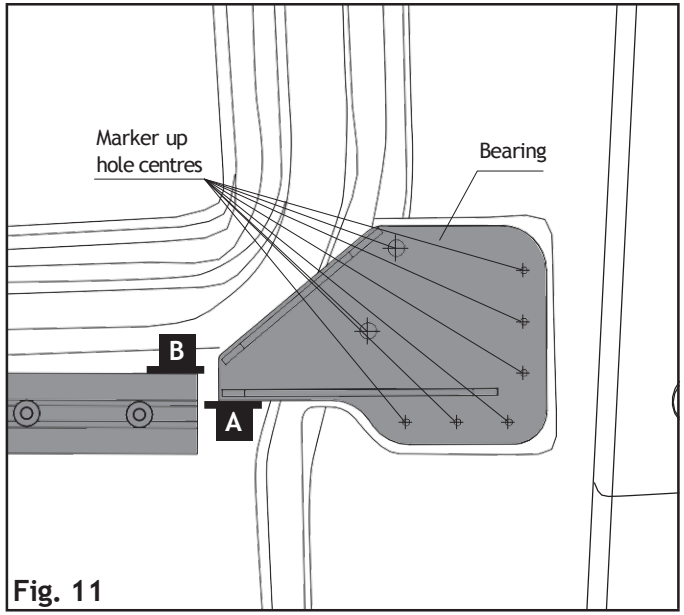


Fig. 11

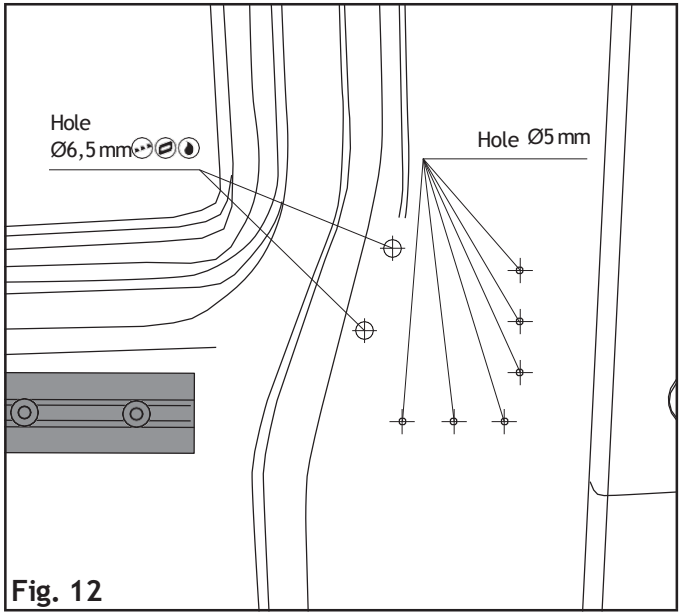


Fig. 12

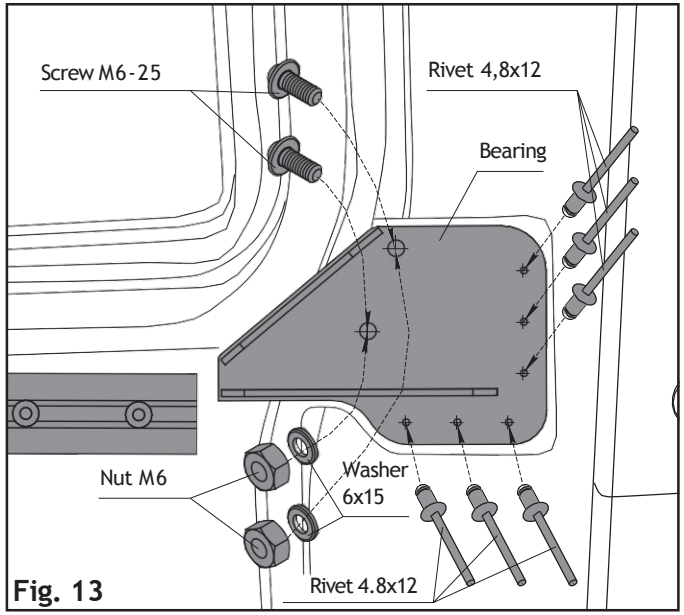


Fig. 13

Remove the door seal in the area of bearing installation (fig. 10)

Put the bearing to the support (fig. 11) Mark out centres of fixing holes on the bearing using a marker.

Bearing edge A has to take place approximately 8-10 mm lower than edge B of the top rack face.

Drill a hole **Ø** 6.5 mm in the bearing if necessary, for a M6-8 screw in order to fix bearing to the doorway rim. Burr the edges, round-off sharp edges and spread acid-free rust-preventing liquid over the edges. Drill the holes **Ø** 5 mm for rivets 4.8x12 from the metal ware (fig.12).

Firstly, fix the bearing only with two M6-25 screw, two washers 6x15 and two nuts M6 from the metal ware. Do not install rivets 4.8x 12 (fig.13).

Fix the bearing with rivets 4.8x12 from the metal ware (fig.13).

NOTE

Screw head M6-25 has to take place inside the C-pillar (from the bearing face side), but the nuts M6 and the washers 6x15 - outside the C-pillar, as shown in figures 14, 15.

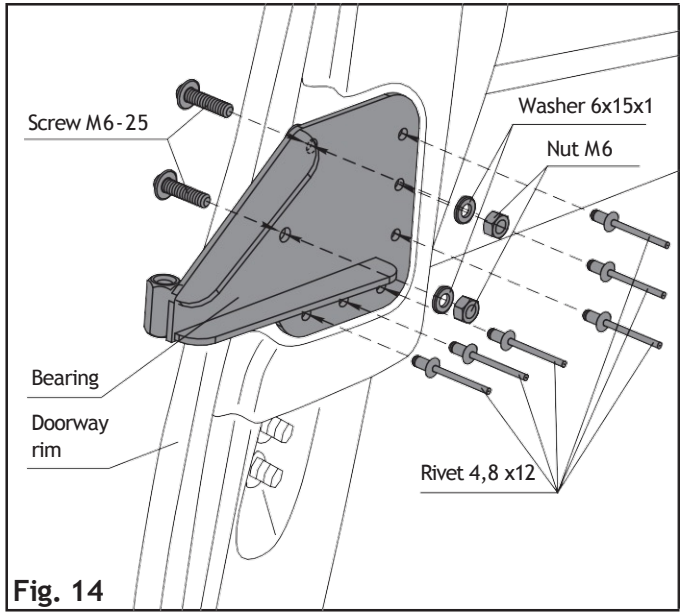


Fig. 14

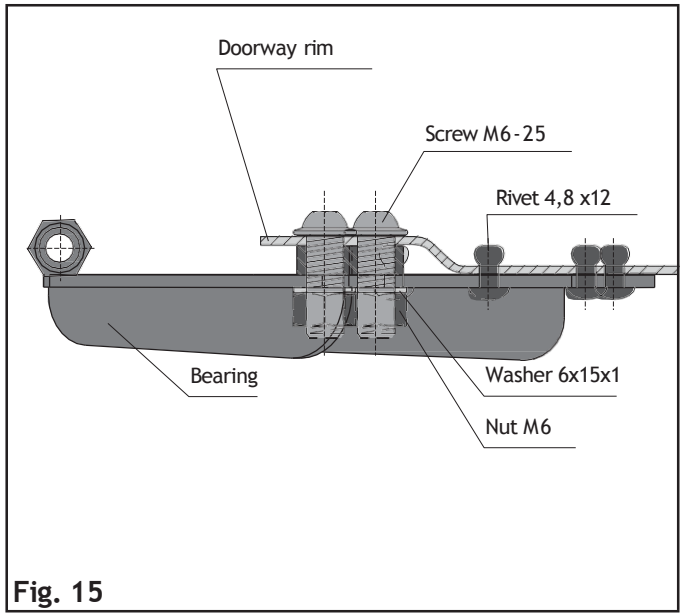


Fig. 15

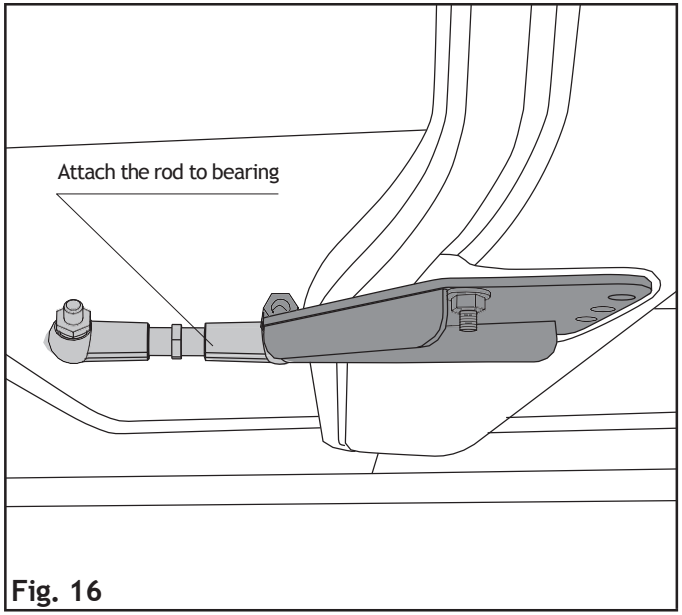


Fig. 16

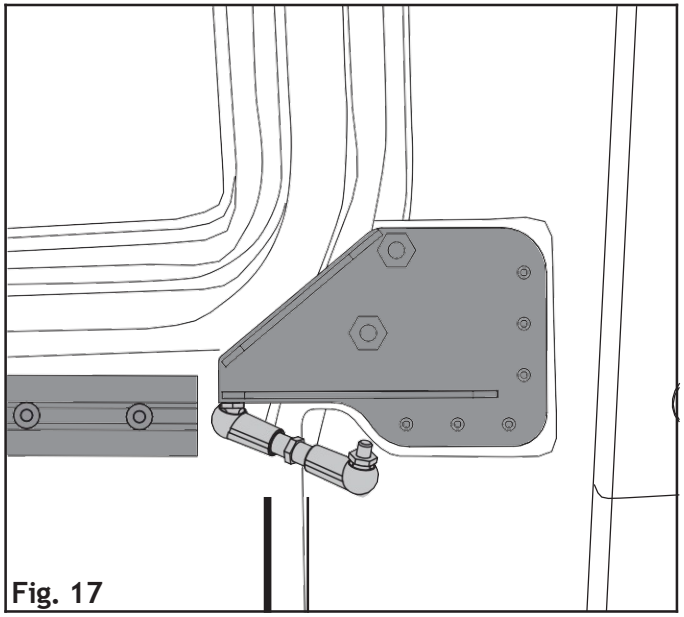


Fig. 17

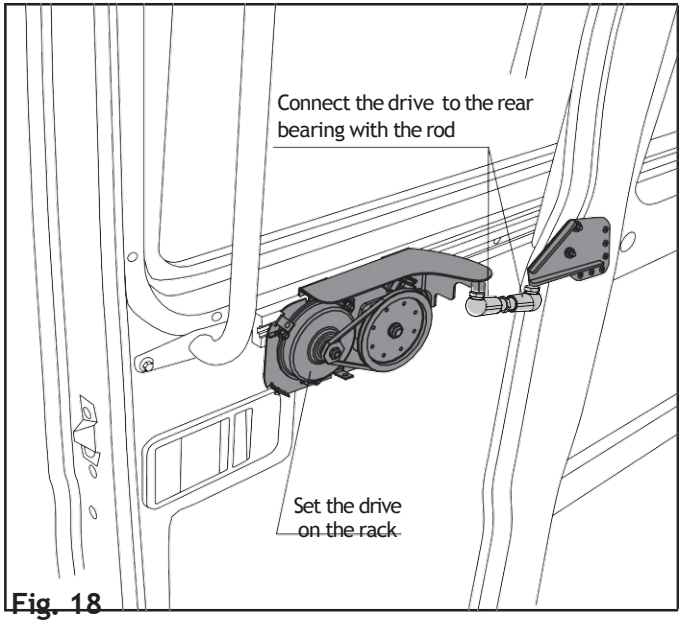


Fig. 18

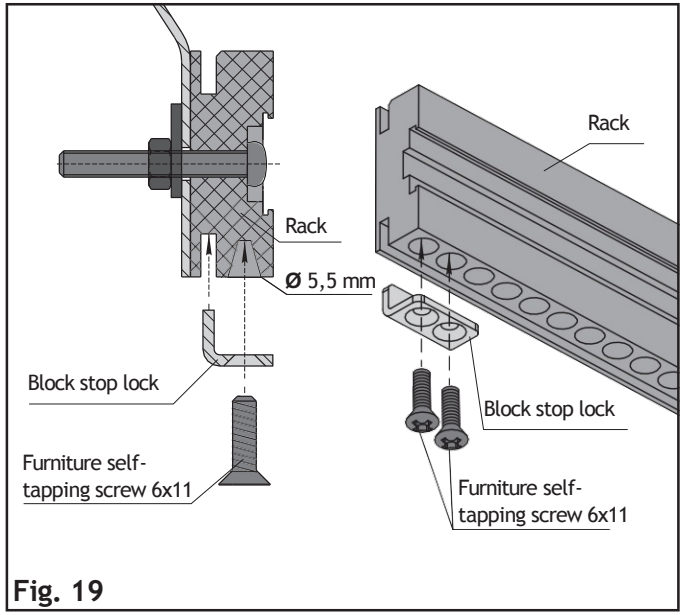


Fig. 19

Attach the rod to the bearing (fig. 16, 17).

Close the door manually.

Check to be sure that racks of the bearing item and the rod do not make the door closing difficult.

Install the door drive on the rack (fig. 18). Connect the drive to the rear bearing with the rod.

Drill two holes with diameter **Ø** 5.5 mm in the front part and set there the block stop lock (fig. 19).

Clean the rack housing from cuttings (fig. 21).

Connect the drive to the controller (fig. 20).

Insert the fuse 30A into the general wire harness.

Close and open the door several times. Be assure that the drive is operating and nothing is in the way.

ATTENTION

Before detaching the drive (if needed) or disconnecting controller, unplug switch fuse 30A first.

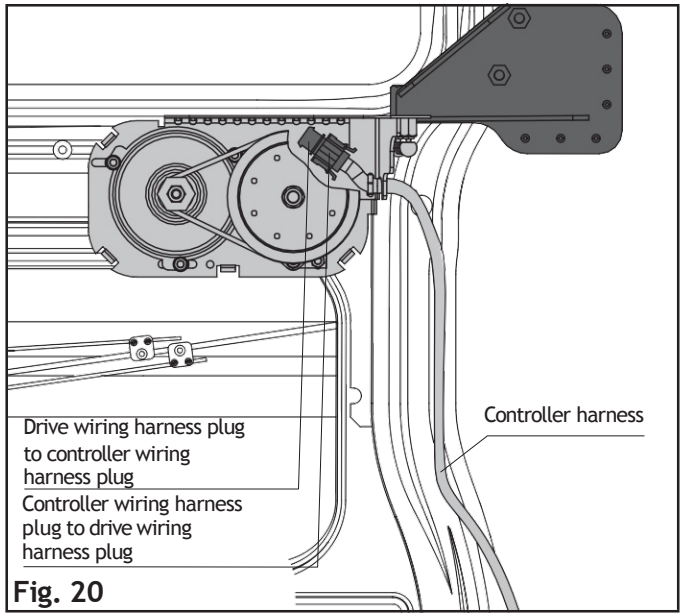


Fig. 20

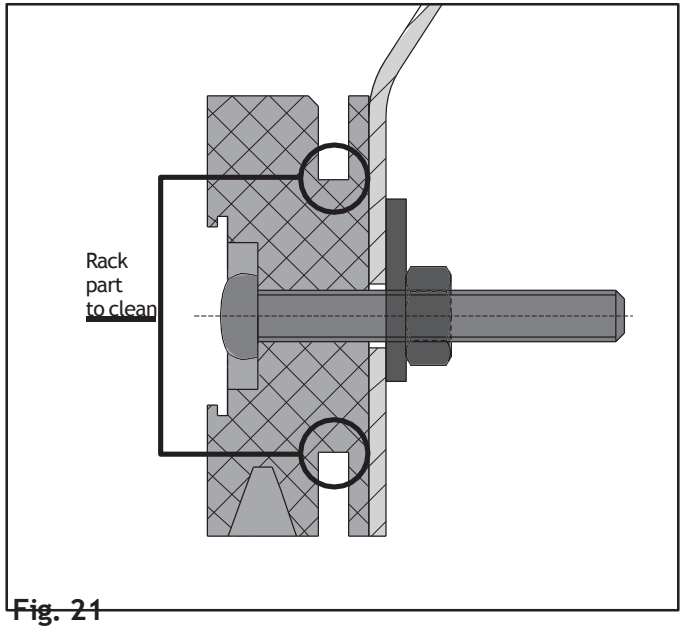


Fig. 21

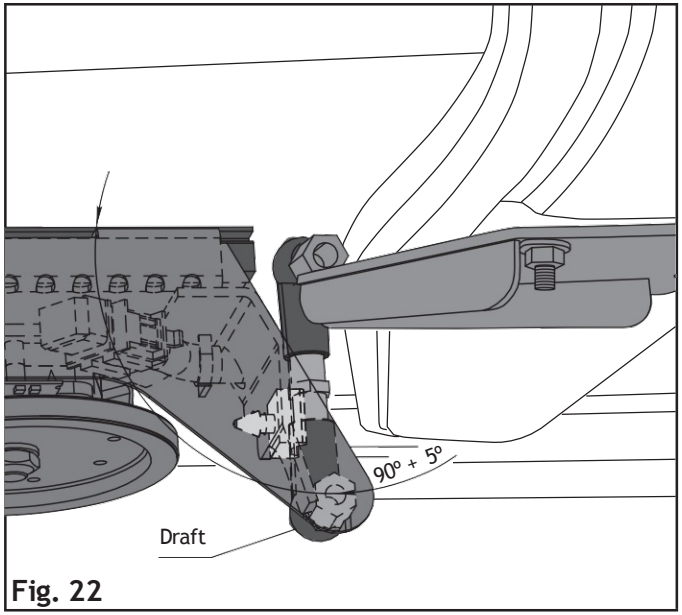


Fig. 22

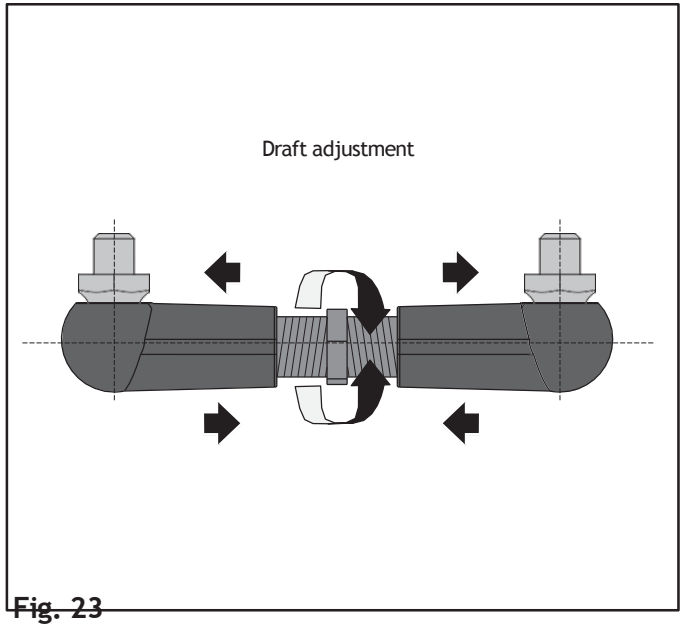


Fig. 23

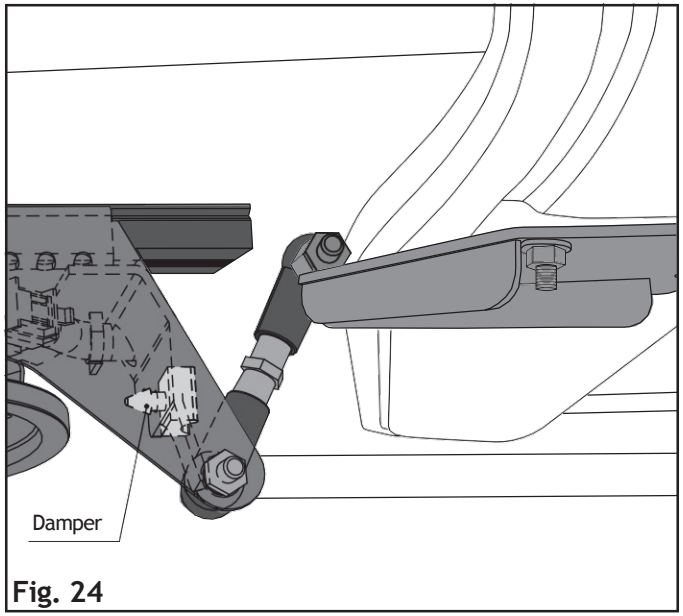


Fig. 24

DRAFT ADJUSTMENT

Draft position with correctly closed door in the locking mode is shown in fig. 22 and fig. 32, p. 26.

Rotating the pin by the hexagon drive (fig. 23), adjust the draft length so as the door could close tightly.

If draft installed correctly, it should bear against the cluster gear damper (fig. 24).

Draft position with correctly closed door in the nonlocking mode is shown in fig. 24 and fig. 33, p. 26.

Scre up the driver cover with four sel-tapping screws 4,2x13 from hardware bag (fig. 25)

Cut the decorative strap according to the rack (fig. 26 and 27).

Carefully put the strap into the rack housing as shown in figures 26 and 27.

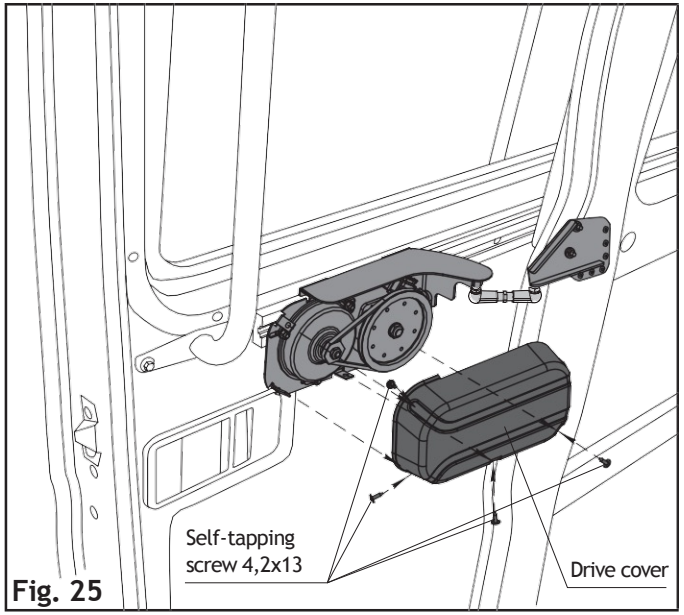


Fig. 25

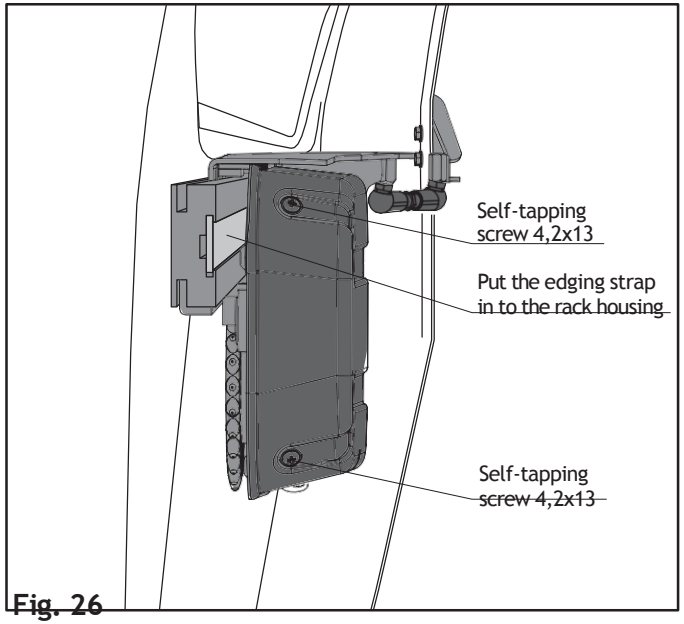


Fig. 26

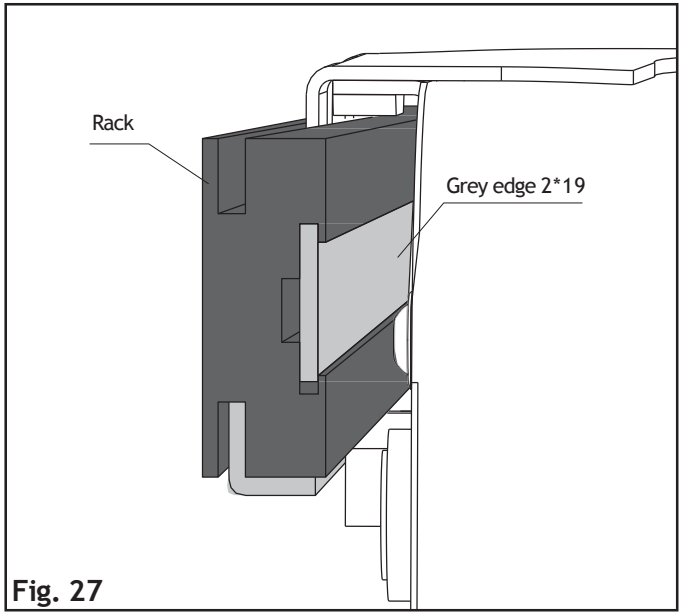
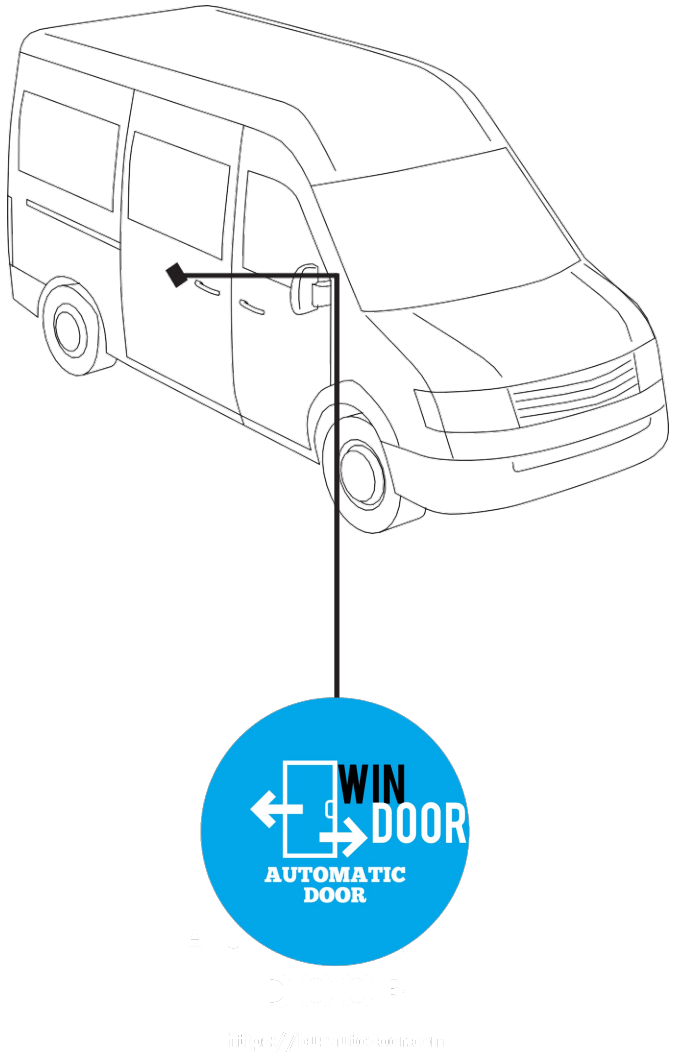


Fig. 27



Place the information sticker outside the sliding door on the panel next to the handle so as it is easy to notice.

Put the outside handle cover to the handle itself, mark on and make two holes with diameter Ø3.5 mm. Screw up the cover on the handle with two self-tapping screws 4.2x16 from the hardware bag, as shown in figure 30.

Put the inside handle cover to the marked place. Screw up the cover with the self-tapping screw 4.2 x 16 from the hardware bag, as shown in figure 30.

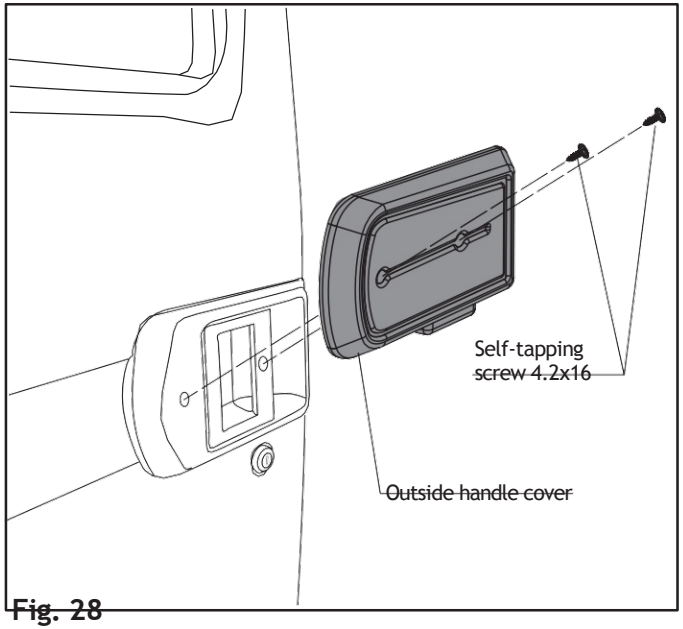


Fig. 28

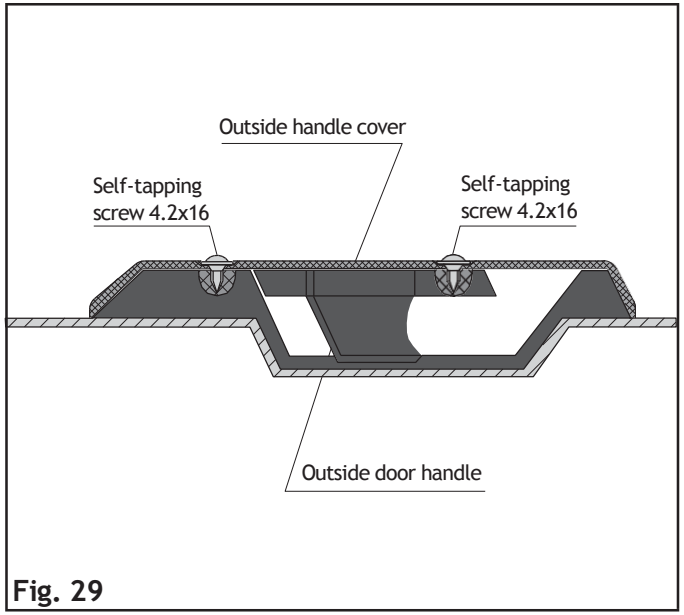


Fig. 29

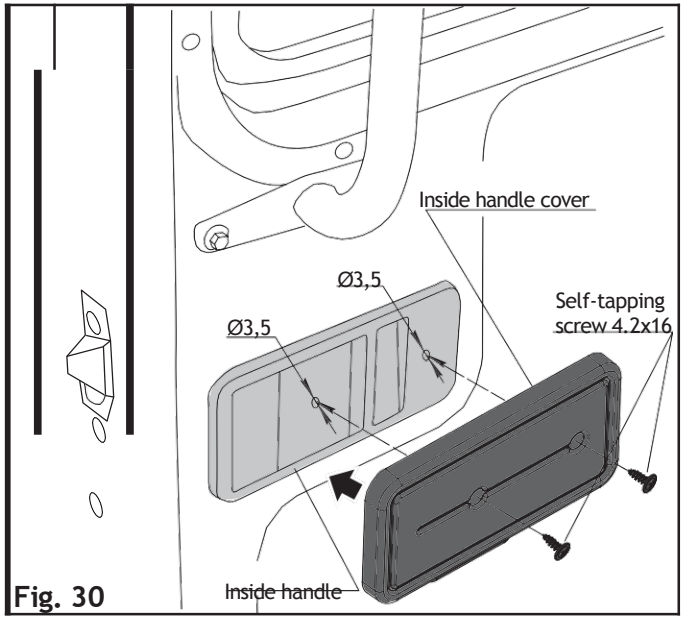


Fig. 30

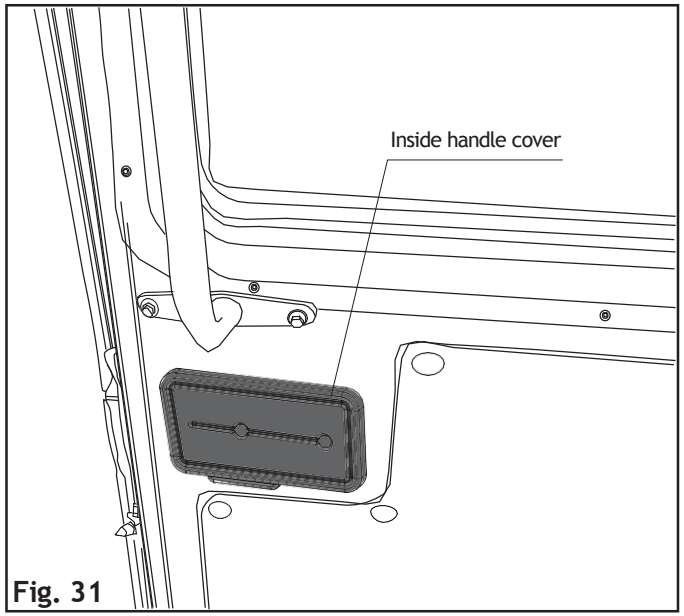


Fig. 31

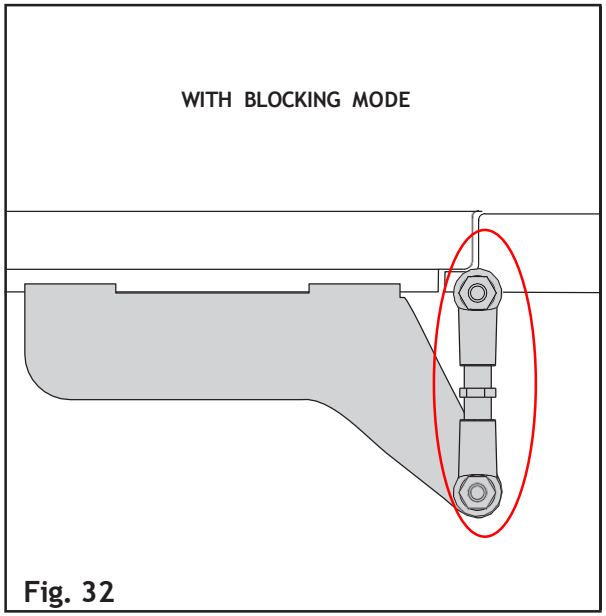


Fig. 32

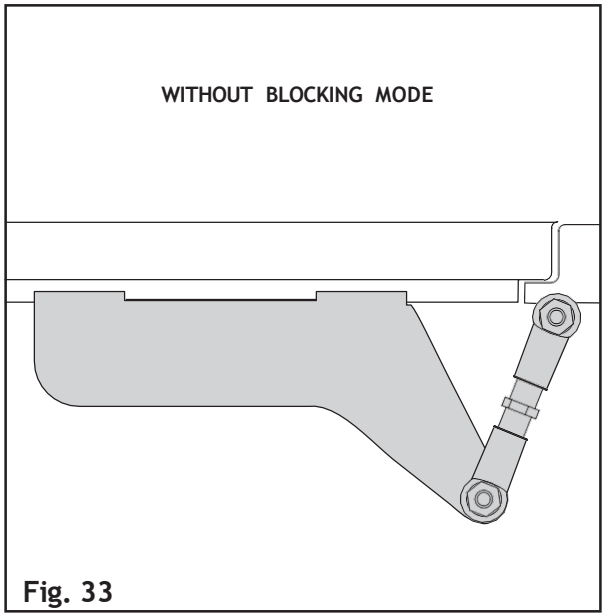


Fig. 33

CROCO DRIVE 101/201

OPENING AND CLOSING THE DOOR

Press and hold on the control button for about 0.5sec. The door starts moving after you release the button.

DOOR STOP

Press the control button once and shortly to stop the door on the move.

AUTOMATIC ROLL BACK

If during the closing process the door meets an obstacle, it will stop and roll back automatically.

DOOR OPENING WIDTH ADJUSTMENT

Open the door. Manually adjust it to desired width. Press and hold on the control button for about 10 seconds till double signal. Release the button. Since now the drive remembers the adjusted opening width.

SLIDING DOOR LOCKING MODE

The drive can work in two modes:

- With blocking mode (in factory settings) fig. 32
- Without blocking (only with lock actuator) fig. 33.

To turn to the without fixation mode, please, press and hold on the button for about 15 seconds until 3 long audio signals. Release the button.

In blocking mode, in order to open the door, you should hold the motor arm (circled in red on Fig.32) and push it to the left until coming in the position of the Non blocking mode (Fig 33)

FACTORY SETTINGS RESET

Press and hold on the control button for about 20 seconds until quadruple audio signal. Release the button. All the drive settings will turn to factory.

EXTRA LIGHTING

The flashlight switches on when the door starts opening and switches off when it's closed.

⚠ NOTE ⚠

The drive settings reset to factory during power failure.

EMERGENCY DOOR OPENING

FROM OUTSIDE:

It is not possibe to open the door from outside.

It is the responsability of the installator and/or the user to ensure that this does not go against their local regulations.

Make sure that the opther doors can be used as emergency exists.

FROM INSIDE:

1. Remove the inside handle cover off (fig. 36) - if available (in option.
2. Press and hold on the button of the inside handle (fig. 36).
3. Move the drive to the left as far as it can go (fig. 36).
4. Open the door manually (fig. 36).

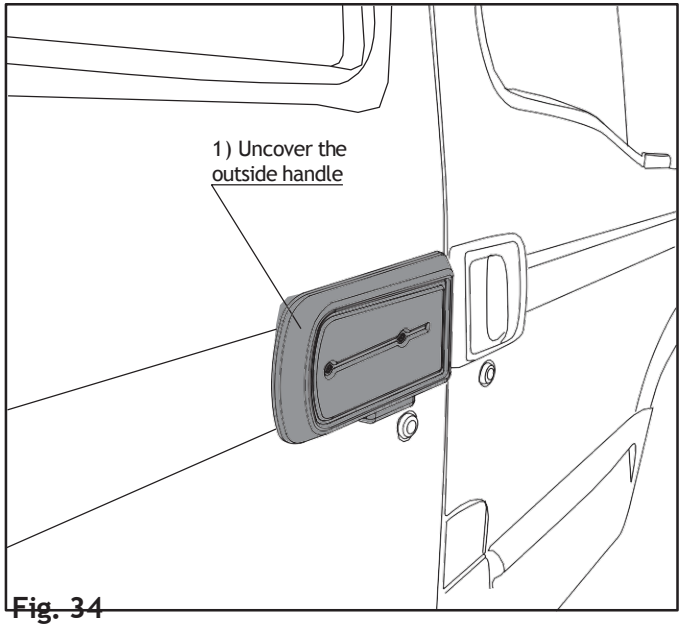


Fig. 34

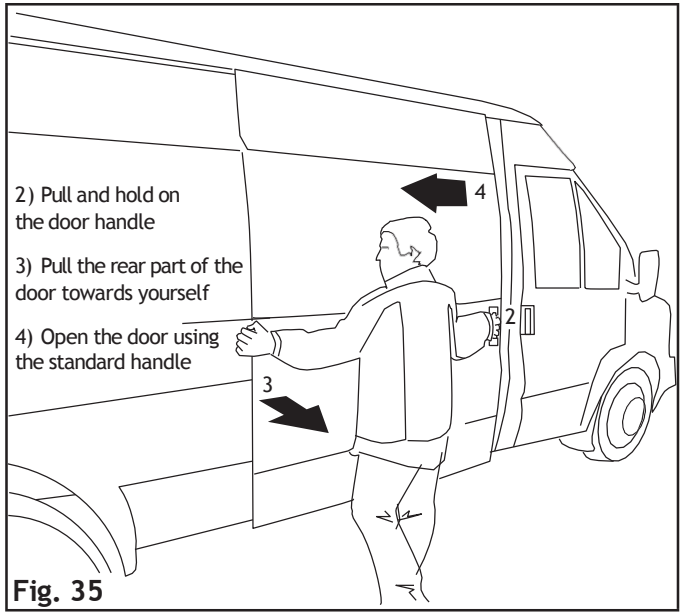


Fig. 35

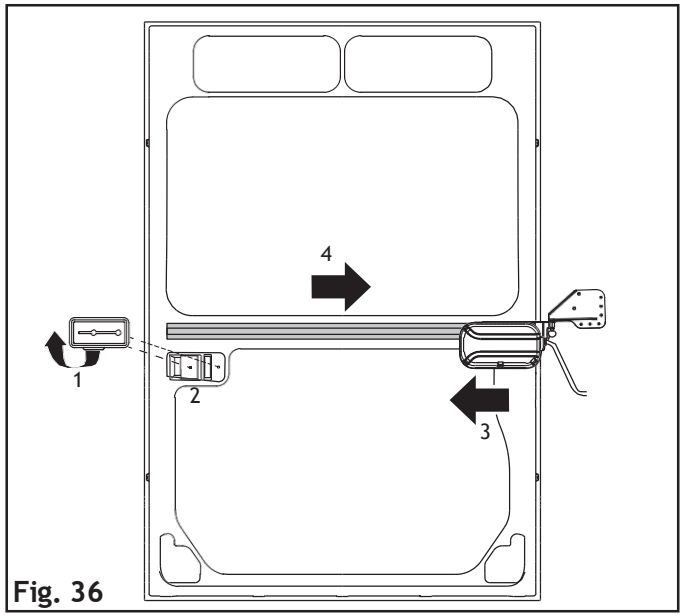


Fig. 36

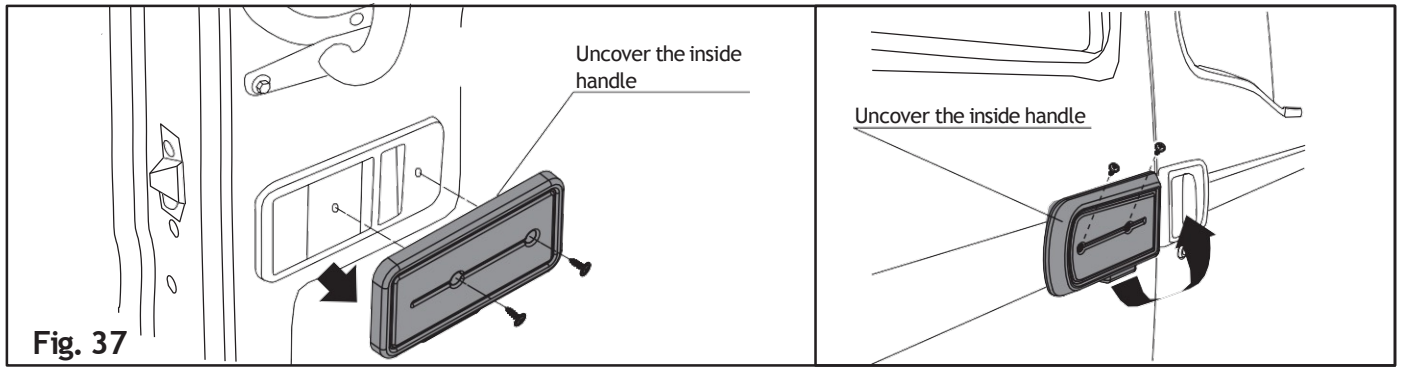


Fig. 37

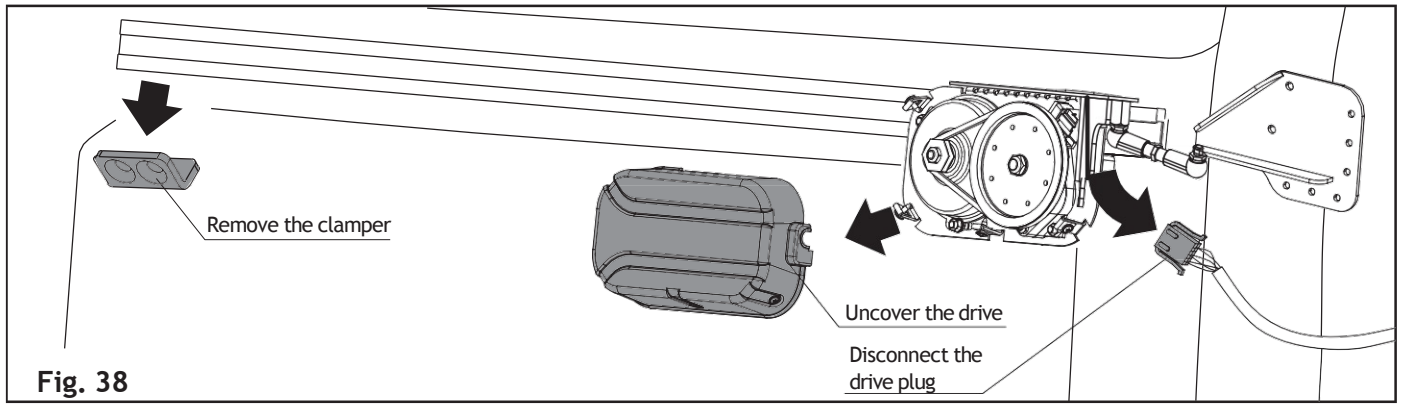


Fig. 38

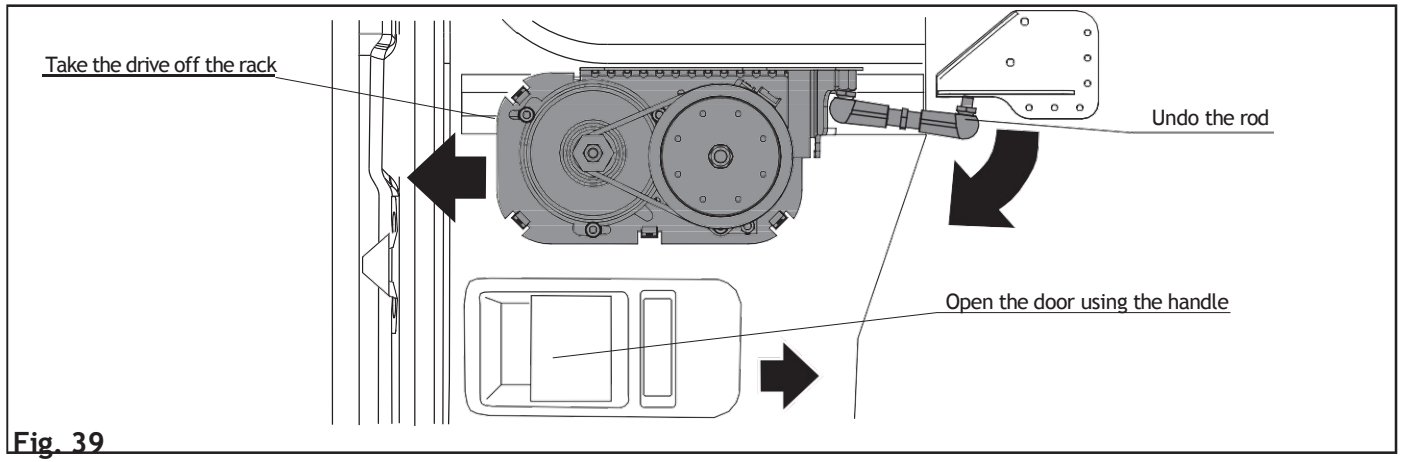


Fig. 39

PUT THE DOOR INTO MANUAL MODE

1. Open the door manually, having unscrewed handle covers. (fig. 37).
2. Remove the clamper (fig. 38).
3. Uncover the drive (fig. 38).
4. Disconnect the drive plug (fig. 38).
5. Undo the rod (fig. 39).
6. Take the drive off the rack (fig. 39).

Now the door can be used in manual mode.