

# **SLIDING DOOR DRIVE**

# **INSTALLATION MANUAL PYTHON**

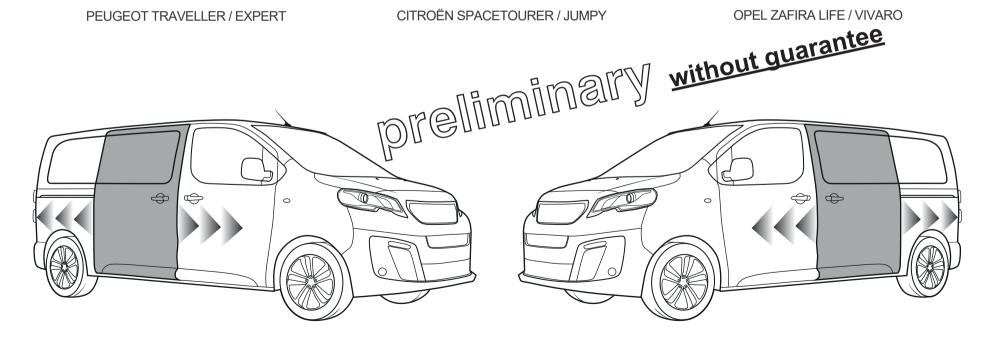








OPEL ZAFIRA LIFE / VIVARO



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# Symbols and means of visualisation

# Warnings

Warning notices are used in these instructions to warn you of damage to property and personal injury.

Always read and follow these warnings.

Follow all measures labelled with the warning symbol and warning word.

Warning symbol	Warning word	Meaning
$\triangle$	WARNING	Hazards for persons. Non-observance can lead to serious injuries.

# Other symbols and visualisation aids

Important information and technical instructions are specially emphasised to clarify correct operation.

Symbol	Meaning	
0	means 'Important information'. Information to prevent material damage, to understand or optimise work processes.	
i	means 'additional information'	
•	Symbol for an action: You have to do something here.  • Keep to the sequence for several action steps.	

# **Product liability**

In accordance with the manufacturer's liability for its products as defined in the Product Liability Act, the information contained in this brochure (product information and intended use, misuse, product performance, product maintenance, information and instruction obligations) must be observed. Failure to do so releases the manufacturer from his liability obligation.

# Applicable documents

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Туре	Name	
Operations Manual	Python	

The plans are subject to change. Only use the latest version.

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1 Sicherheitshinweise

# 1.1 Intended use

The Python sliding door drive is designed for the automatic opening and closing of sliding doors. The door operator is only suitable for use in panel vans.

Any use other than the intended use, e.g. permanent manual operation, and all modifications to the product are not permitted.

Observe the 'ADOR product information for drives'.

# 1.2 Safety instructions

- > Prescribed installation and maintenance work must be carried out by qualified personnel.
- > Assembly requires holes to be drilled in the body parts. The exact position of these drill holes is required in order to maintain the positional accuracy of the assembled components.
- > The country-specific laws and regulations must be observed for safety inspections must be observed.
- > Unauthorised modifications to the drive exclude any liability on the part of ADOR for resulting damage.
- > ADOR accepts no warranty for combinations with third-party products.
- > Only original ADOR parts may be used for repair and maintenance work.
- In accordance with the Machinery Directive 2006/42/EC, a hazard analysis must be carried out before the door system is a risk analysis must be carried out and the door system labelled in accordance with the CE marking directive 93/68/EEC.
- > Observe the latest directives, standards and country-specific regulations, in particular:
  - > DIN VDE 0100-600: 'Installation of low-voltage systems; Part 6: Tests'
  - > DIN EN 60335-2-103, DIN 18263-4
  - > Accident prevention regulations, in particular BGV A1 'Principles and prevention' and BGV A3 DA 'Implementation instructions for the accident prevention regulation 'Electrical Installations and Equipment'

The product should be installed in such a way that easy access to the product for repairs possible repairs and/or maintenance with relatively little effort and that any and any removal costs are not disproportionate to the economic value of the product. disproportionate to the value of the product.

# 1.3 Safety-conscious working

- > Secure the workplace against unauthorised access.
- > Only use the cables specified in the cable plan.
- > Secure loose, drive-internal cables with cable ties.
- > Before working on the electrical system: Disconnect the power supply to the starter battery.
- > Always use insulated wire end ferrules for stranded wires.
- > Ensure sufficient lighting.
- > Risk of injury when the sliding door is open. Hair, clothing, cables, etc. can be pulled in by moving parts!
- > Risk of injury due to unsecured crushing, impact, shearing and pull-in points!
- > Risk of injury due to sharp edges on the bodywork!
- > Risk of injury due to freely moving parts during assembly!

# 1.4 Testing the installed drive

Measures to safeguard against and avoid crushing, impact, shearing and drawing-in points:

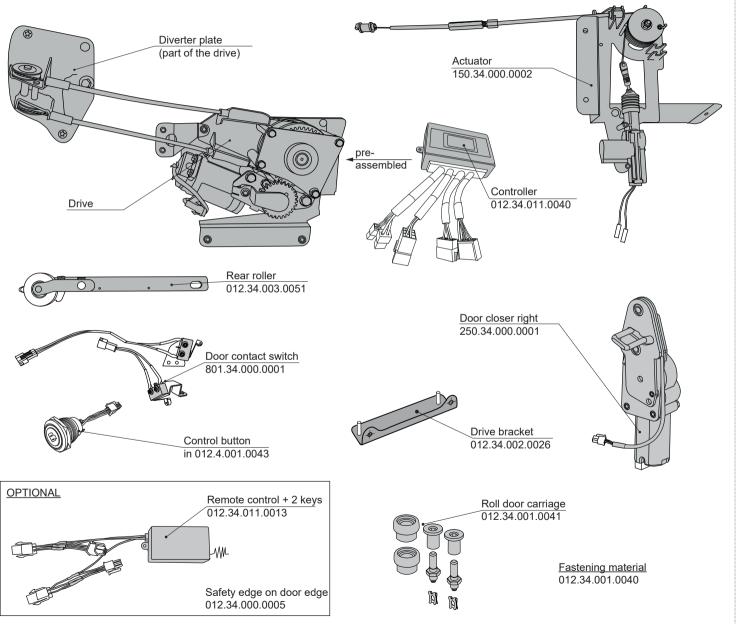
- > Check the function of the automatic reversing in the event of contact with an obstacle.
- > Carry out a safety analysis (hazard analysis).

# 1.5 Environmentally conscious working

- > When disposing of the door system, separate the different materials and recycle them.
- > Do not dispose of batteries and rechargeable batteries with household waste.
- > Observe the legal regulations when disposing of the drive and batteries/rechargeable batteries.

# 2 Scope of delivery

# 2.1 check for completeness





# 2.2 Accessories

# Optional

- > 2-channel remote control kit with two keys
- > Safety edge on door edge

# 2.3 Transport and storage

- > The rack-and-pinion drive is not designed for hard knocks or for falling from a height. Do not throw or drop.
- > Storage temperatures below -30 °C and above +60 °C can damage the device.
- > Protect from moisture.

### 3 List of tools and aids

Rivet nut	15 pieces
Drills 2,5; 3,2; 5; 6,5	
Drill	1 piece
Cutter	
Wire for pulling through	
Hacksaw	1 piece
Blade screwdriver	1 piece
Hammer	1 piece
Clip remover	1 piece
Center punch	
Combination pliers	
Cross-slotted screwdriver	1 piece
Torch	1 piece
Spanner wrenches, Open-end wrenches	1 set
Knife	1 piece
Sliding calipers	1 piece
Riveter for blind rivet nuts Gesipa GBM10	1 piece
Set of interchangeable heads10 up to 17 mm	1 piece
Ratchet	1 piece
Industrial spirit	1 bottle
Set of Allen keys	1 set
Set of Torx bits	1 set
Cutting nippers	1 piece
Metal ruler	1 piece
Taper drill 4 up to 24 mm or peeler drill	
Electrical socket extender	1 piece

There may appear some edge fin after making holes, finally it leads to the damage of the paint coat. There are symbolic notations on the places where some treatment is required:



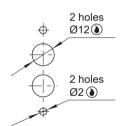
--- Remove edge fin

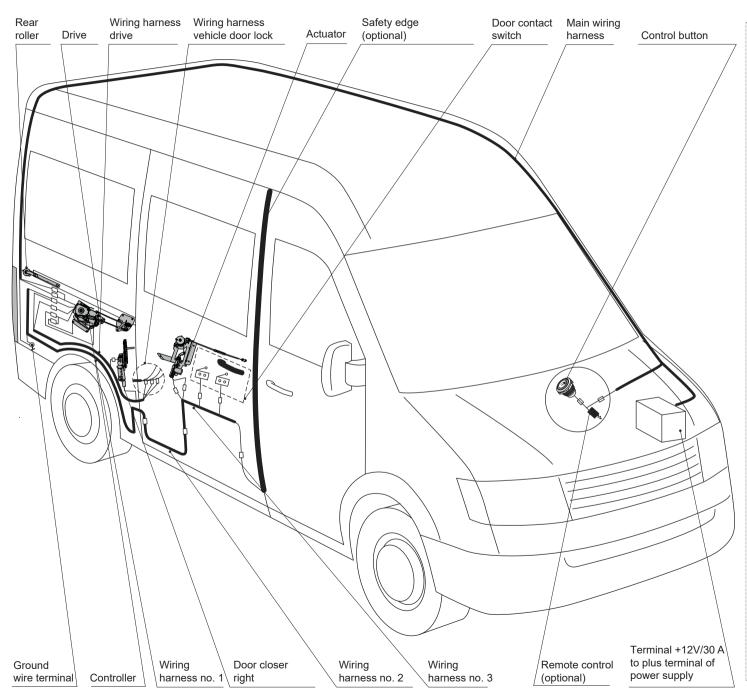


--- Unedge



--- Treat with acid-free antirust liquid





# 4.1 Product description

This sliding door drive is designed to open and close right sliding door in Peugeot Traveller, Peugeot Expert, Citroen SpaceTourer, Citroen Jumpy, Opel Zafira Life, Opel Vivaro, Toyota Proace Verso Minibus / Minivans.

The layout of the units is shown on the base of the universal minibus prototype.

These installation manual describe the drive with optional accessories.

If the standard drive is installed, the corresponding sections in these installation manual do not apply.

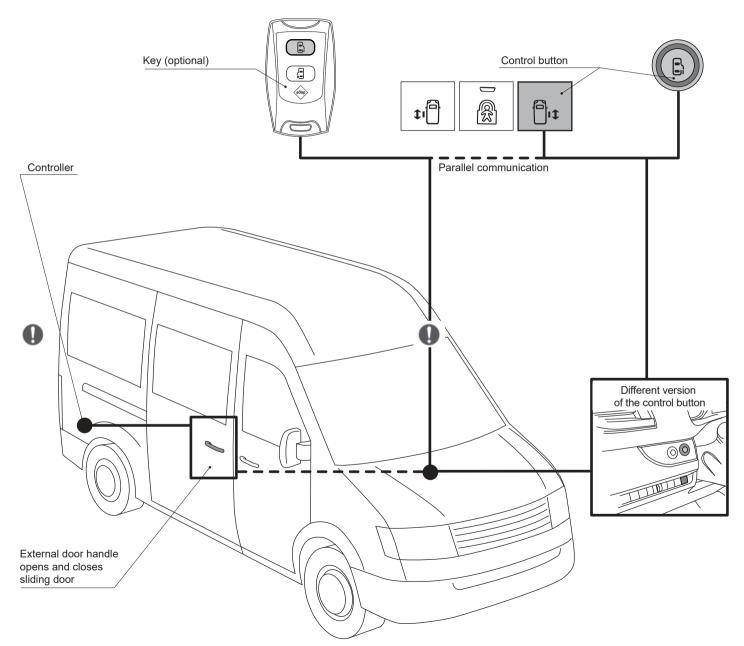
# 4.2 Technical data

PYTHON drive is designed for opening and closing doors in minibuses working as e.g. taxi buses or camper vans.

You will find a list of models on the cover page. If your model is not listed, please ask us.

Power consumption (rating)	150 W	
Power consumption (max)	240 W	
Door-opening time, (it depends upon the opening width adjustment)	4 - 8 Sek.	
Door-opening time, (it depends upon the opening width adjustment)	4 - 8 Sek.	
Category temperature range	-25°C bis +40°C	
Maximum slop for the door to be closed	10%	
Resources	Not less then 500.000 cycles	

# BUTTON CONNECTION DIAGRAM FOR THE RIGHT SIDE



The PYTHON drive is an electromechanical device that is powered by the minivan's on-board power supply. The drive unit consists of the following main components:

- 1. Actuator
- 2. Drive
- 3. Door closer

The actuator unlocks the door lock.

The drive opens and closes the sliding door with a pull cable

The door closer pulls the sliding door shut until it is closed.

The drive unit is controlled via:

- Control button for opening and closing the sliding door. Setting of drive parameters.
   For example, mounted on the instrument panel.
- Sliding door handles on the outside and inside are equipped with limit switches for opening and closing the sliding door.
- 3. Optional: Key for opening and closing the sliding door.

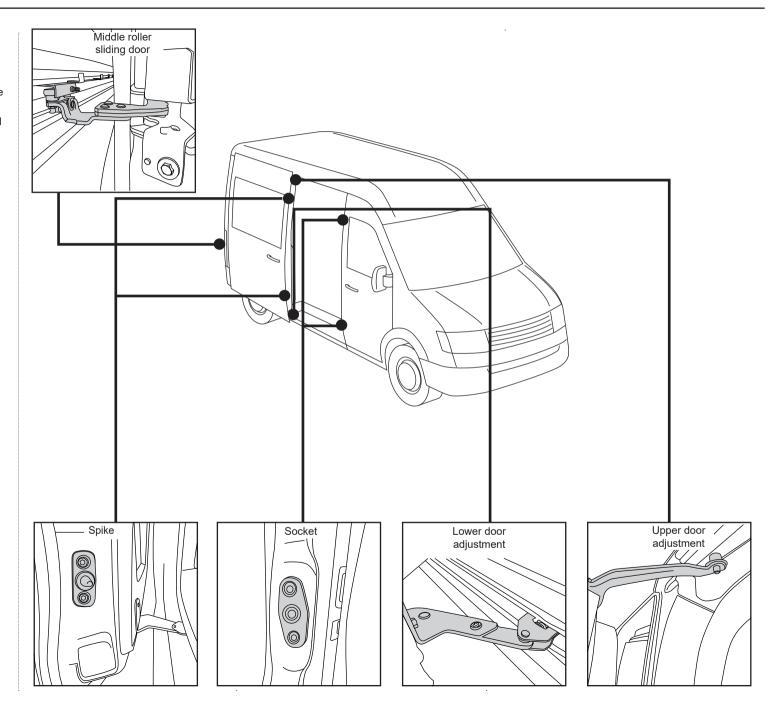
The functional reliability and durability of Ador drives are fundamentally dependent on professional installation. Installation in specialist workshops is recommended. Experienced amateurs should be well prepared and, if necessary, seek expert assistance.

# 6 Installation

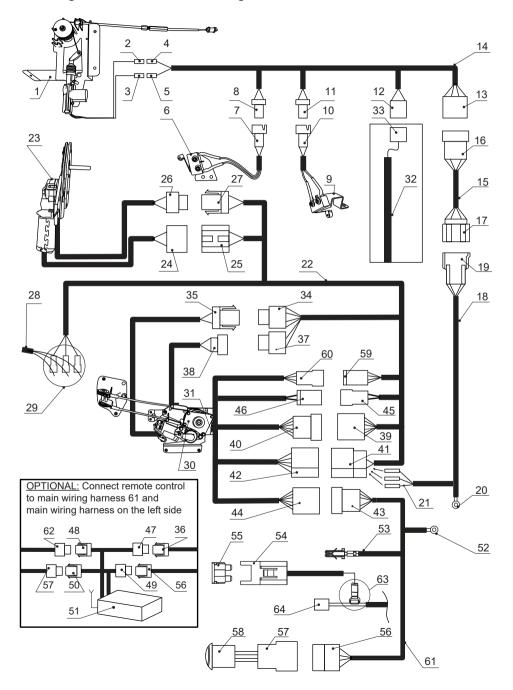
# 6.1 Instructions before starting installation

Before installing the drive, the position of the sliding door in the van must be checked:
Check the gap between the sliding door and the body on the left and right as well as at the top and bottom for evenness.
The sliding door must be readjusted, if necessary.

This adjustment influences the function of the drive.



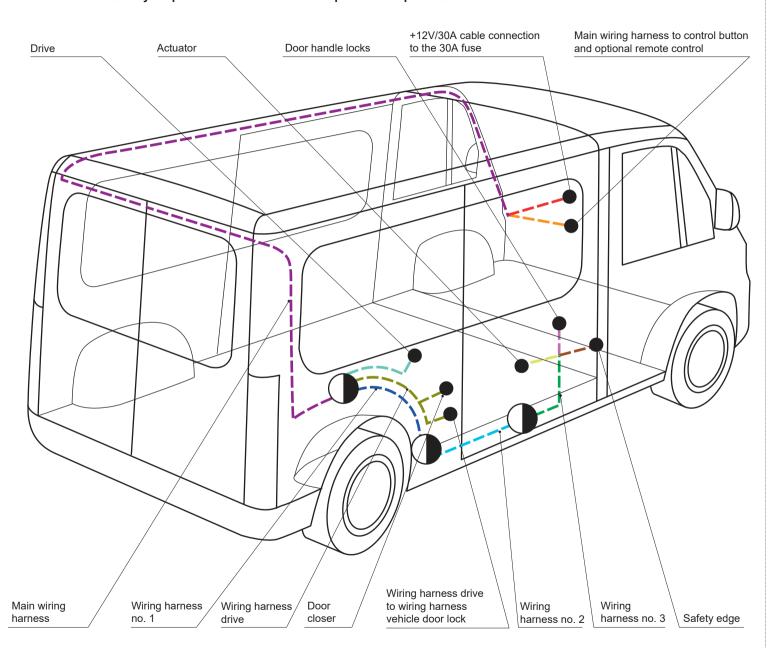
# 6.2 Wiring harness and connection diagram



- 1 Actuator
- 2. Blue connector cable from actuator
- 3. Green connector cable from actuator
- 4. Blue coupling cable to actuator
- 5. Green coupling cable to actuator
- 6. Door contact switch, interior door handle
- 7. Coupling, door contact switch, interior door handle to 8.
- 8. Plug from cable harness no. 3 to 7.
- 9. Door contact switch, exterior door handle
- Coupling, door contact switch, exterior door handle to 11.
- 11. Plug from cable harness no. 3 to 10.
- 12. Coupling wiring harness no. 3 to plug safety edge 32.
- 13. Coupling wiring harness no. 3 to plug Wiring harness no. 2
- 14. Wiring harness no. 3
- 15. Wiring harness no. 2
- 16. Plug wiring harness no. 2 to coupling
- 20. Terminal to vehicle ground '-'
- 21. Connection terminals (3x) to plug 42 from wiring harness 22.
- 22. Wiring harness drive
- 23. Door closer right
- 24. Plug for door closer 23. to connector 25. from wiring harness 22.
- 25. Coupling harness 22. to connector door closer 24
- 26. Coupling door closer 23. to connector 27. from 22. harness.
- 27. Connector harness 22. to coupling door closer 26.
- 28. Wiring harness vehicle door lock.
- 29. T-tap connections wiring harness 22. to wiring harness door lock vehicle.
- 30. Drive
- 31. Controller
- 32. Safety edge (optional)
- 33. Plug to safety edge 32.
- 34. Coupling wiring harness 22. to plug 35. from 31. drive cable.
- 35. Plug 31. drive cable to coupling 34. from wiring harness 22.
- 36. Left side: Coupling main wiring harness 61. for connecting the control button 59.
- 37. Coupling cable harness 22. to plug 38. from cable drive 31.

- 38. Plug cable drive 31. to coupling 37.
- 39. Plug of drive wiring harness 22. to coupling 39. of controller 31
- 40. Coupling of control 31. to plug 40. of drive wiring harness 22.
- 41. Plug wiring harness drive 22. to coupling 42. from control 31.
- 42. Coupling from control 31. to plug 41 from wiring harness drive 22.
- 43. Plug main wiring harness 62. to coupling 44. from control 31
- 44. Connector from controller 31 to connector 43 from main wiring harness 62.
- 45. Connector from wiring harness drive 22 to connector 46 from controller 31.
- 46. Connector from controller 31 to connector 45 from wiring harness drive 22
- 47. connector of the receiver wiring harness to coupling 36. left side
- 48. Coupling of the receiver wiring harness to connector 62. left side
- 49. Connector of the receiver wiring harness to coupling 56.
- 50. Coupling of the receiver wiring harness to connector 57.
- 51 Remote control
- 52. Ground terminal '-' of the main wiring harness to the ground bolt of the body.
- 53. +12V terminal of the main wiring harness to the fuse holder 54.
- 54. Fuse holder
- 55. 30A fuse
- 56. Coupling main wiring harness 61. for connecting the control button 58.
- 57. Plug of control button 58. to coupling main wiring harness 61.
- 58. Control button
- 59. Coupling from wiring harness drive 22. to plug 60. of controller 31.
- 60. Plug from wiring harness drive 22. to coupling 59. of controller 31.
- 61. Main wiring harness.
- 62. Plug of control button 59. to coupling Main wiring harness left side
- 63. Tap connection main wiring harness 61. to the '+' wire of vehicle plug 64.
- 64. Vehicle plug 261/17V.

# 6.3 Cable harness layout plan and location of most important components





All cables must be securely fastened so that cable breaks and abrasion do not lead to short circuits.

The location of the wiring harnesses and the most important components is shown in the illustration. Use steel wire to lay the wiring harnesses in concealed areas. Be careful when laying the cable harnesses, as damage to the insulation of the wires is unacceptable. Make sure that the insulation layer of the wires is not damaged.

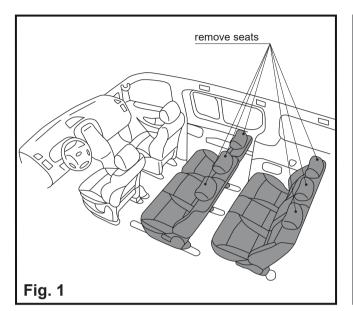
A possible starting point for cable laying is shown in the illustration. The following sequence should be observed:

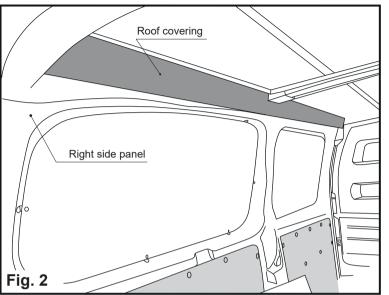
- **1.** Cable harness no.  $3 \rightarrow$
- **2.** Cable harness no.  $2 \rightarrow$
- 3. Main cable harness
- 4. Cable harness no. 1 →
- 5. Cable harness for drive and door closer.

lay.

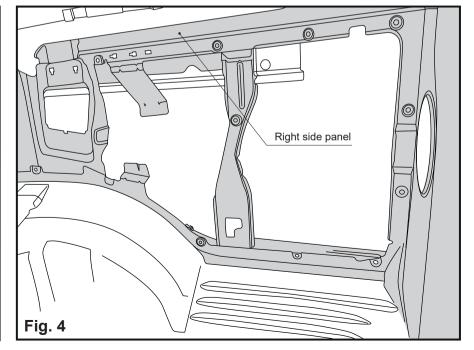


wiring harness connection point





# Rear right side panel Fig. 3



# 6.4 Prepare the interior

Remove all rear seats from the interior of the minivan (Fig. 1) to gain access for installing the main components of the Python door drive.

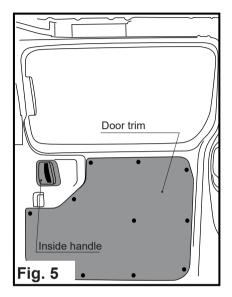
Remove the rear ight side panel (Fig. 3) to access the door drive installation in the body cavity (Fig. 4).

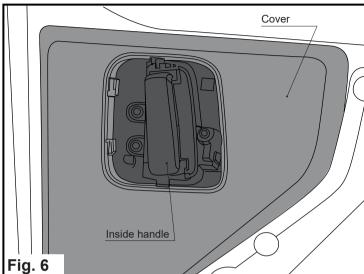
Remove the section of roof trim on the right side wall of the body for the main wiring harness (Fig. 2).

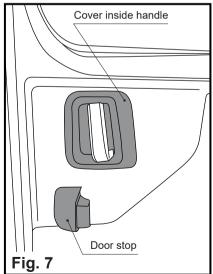
Remove the door trim to install the door contact switch, the actuator and wiring harness no. 3 (Fig. 5).

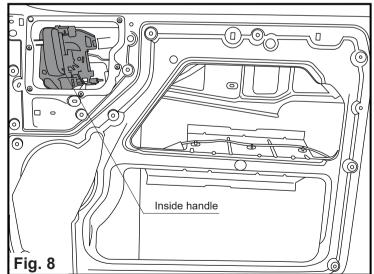
Remove the cover, the door handle trim and the door stop (Fig. 6, Fig. 7).

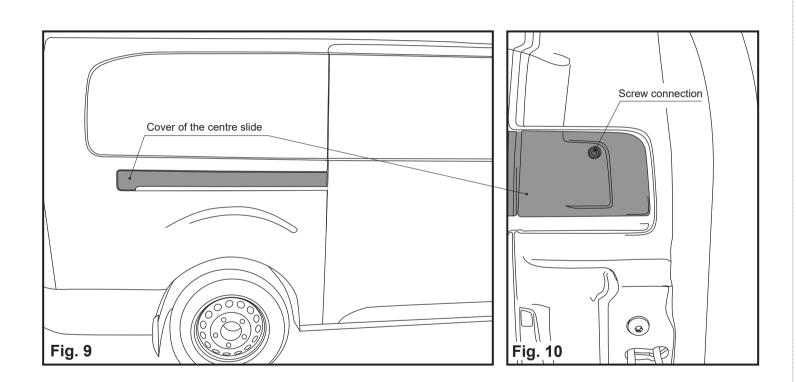
Remove the protective film from the sliding door to gain access to the outer and inner door handles and the cavity in the sliding door (Fig. 8).











# 6.5 Prepare sliding door

Remove the cover of the centre slide by removing the screw connection.

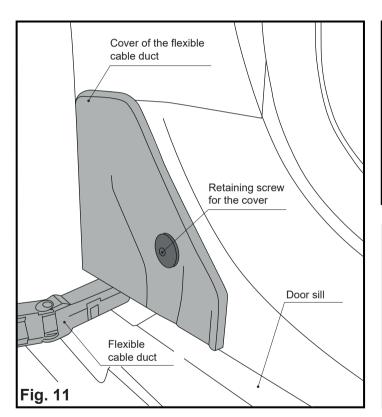
Press the cover of the centre slide over the clips (Fig. 9, Fig. 10).

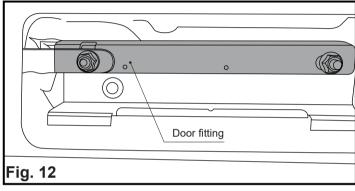
Remove the cover of the flexible cable duct by first removing the retaining screw securing the cover and disconnecting the cable connection on the vehicle side, Fig. 11 and Fig. 15, Fig. 16 on page 16.

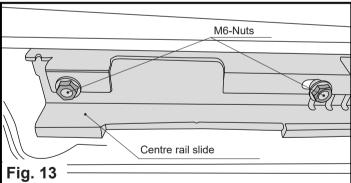
Remove the door stop by unscrewing the two M6 nuts on the rear of the centre rail slide of the sliding door (Fig. 13).

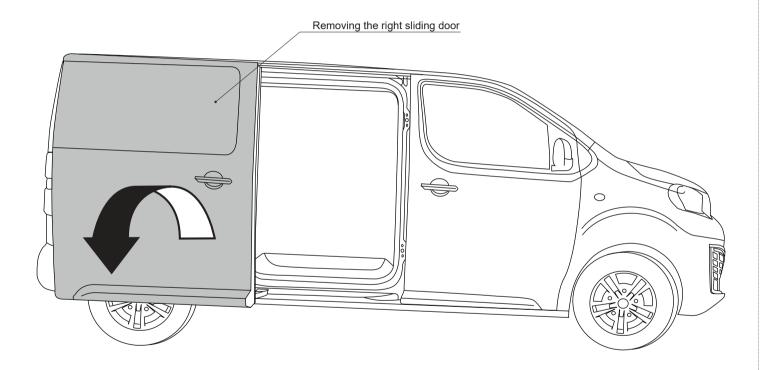


Do not open the sliding door across the entire width of the opening to prevent the door from falling out of the centre slide without the door stop!









Carefully remove the right sliding door from the minivan in the following order:

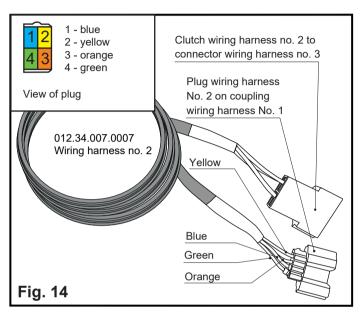
- ▶ Pull the middle roller out of the middle rail.
- Lift the rear part of the door upwards.
- ▶ Remove the lower roller from the guide.
- Lift the rear part of the door downwards.
- ▶ Push the upper hinge out of the upper guide. Remove the upper roller from the upper rail.

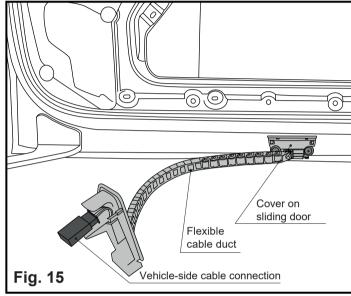
For the sliding door, the middle roller must be changed, as shown in detail on pages ?? - ??.

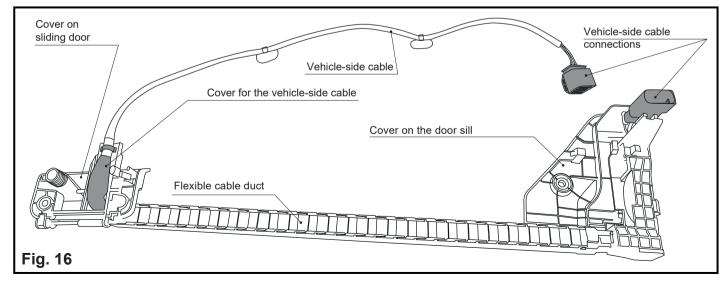
To lay wiring harness no. 2 (Fig. 14), the entire flexible cable duct (Fig. 15) must be removed.

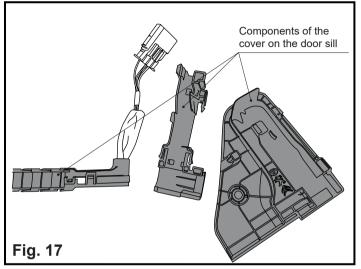
Remove the cover of the flexible cable duct on the sliding door (Fig. 15). Unscrew the cover on the door sill of the flexible cable duct (Fig. 15, Fig. 16).

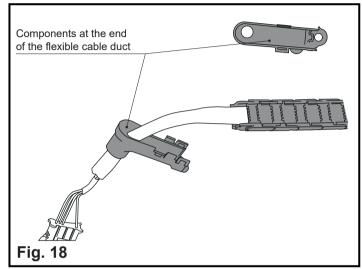
Before laying section no. 2 of the door wiring harness, remove the block (A) and reinstall section no. 2 after laying the door wiring harness. If necessary, mark the block with a felt-tip pen (Fig. 14).

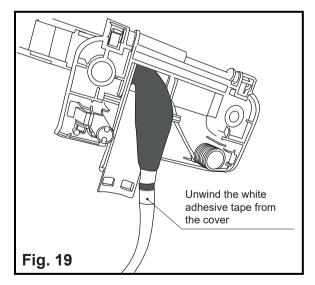


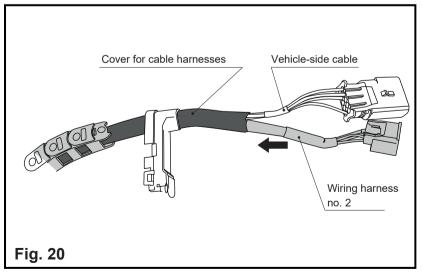












After removing the flexible cable duct, it is necessary to dismantle the cover components on the door sill (Fig. 17, Fig. 18).

Unwind the white adhesive tape on the protective cover of the sliding door cover (Fig. 19).

Pull the wiring harness no. 2 (four flat plugs) through the protective cover next to the vehicle-side cable using a wire or cable pulling aid (Fig. 20). Vaseline or a similar lubricant may be helpful on the wiring harness no. 2.

Fit the connector housing with the four flat plugs, see Fig. 14 on page 16.

Reassemble the components of the flexible cable duct in reverse order (Fig. 21, Fig. 22). Seal the protective cover, Fig. 19 on page 17, again with adhesive tape.

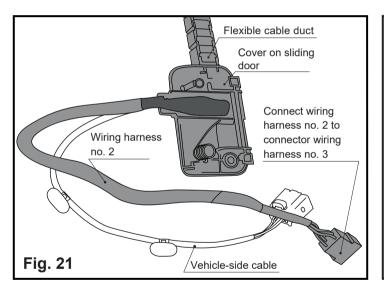


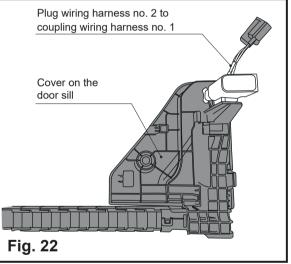
The free length of cable harness no. 2 should be 670 mm, starting at the cover on the sliding door.

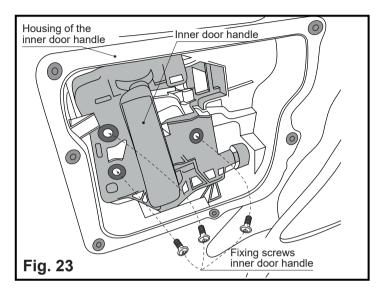
Reattach the cover to the sliding door as shown in Fig. 15 on page 16, after first pulling the vehicle-side cable and cable harness no. 2 through the recess in the sliding door (Fig. 21).

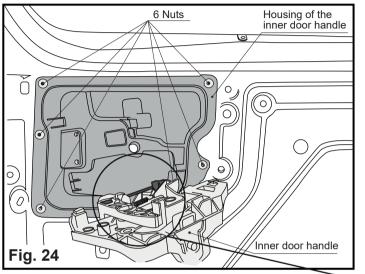


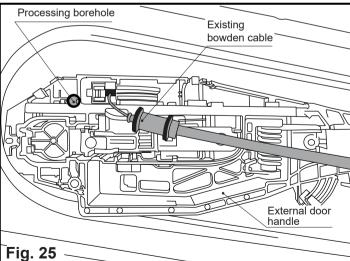
The cover is only attached to the door sill (Fig. 22) and the plug connections are only connected after cable harness no. 1, the drive and the actuator have been installed.

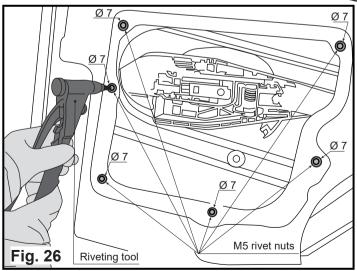












# 6.6 Installation of door contact switch and actuator

Loosen the three screws securing the interior door handle (Fig. 23).

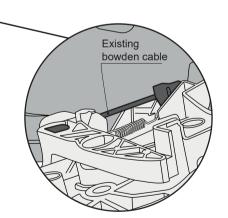
Remove the interior door handle (Fig. 23) by pushing it to the right and pulling it to the side (Fig. 24).

Disconnect the existing bowden cable from the door handle on the inside (Fig. 24) and remove the door handle on the inside.

Drill out the 6 rivets from the housing of the door handle on the inside and remove the housing of the door handle on the inside (Fig. 24).

Disconnect the existing bowden cable from the outer door handle as shown in Fig. 25.

Drill the six holes with a 7 mm drill bit (Fig. 26). Insert M5 rivet nuts into these holes using a riveting tool.

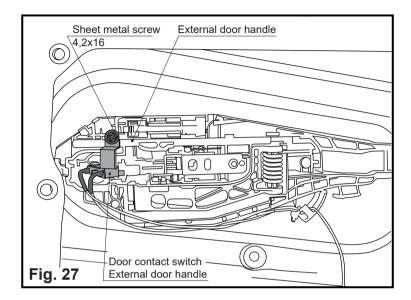


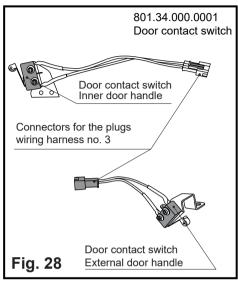
Secure the door contact switch external door handle with a sheet metal screw 4.2 x 16 in the existing hole in the external door handle, Fig. 27, Fig. 28 and Fig. 25 on page 19.

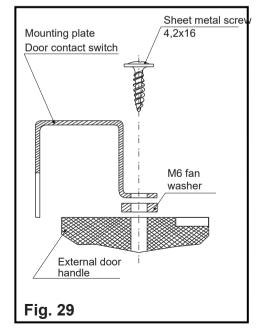
If necessary, place an M6 fan washer under the mounting plate (Fig. 29).

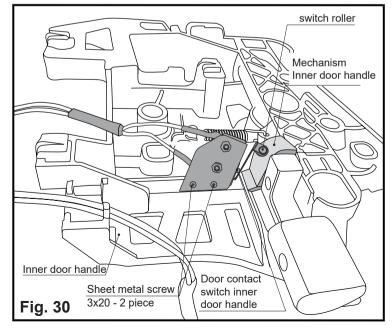
Place the door contact switch on the inside door handle so that the switch roller is pressed down. Make two marks and drill two holes with a diameter of 2 mm. Secure the mounting plate with two 3x20 sheet metal screws (Fig. 28, Fig. 30).

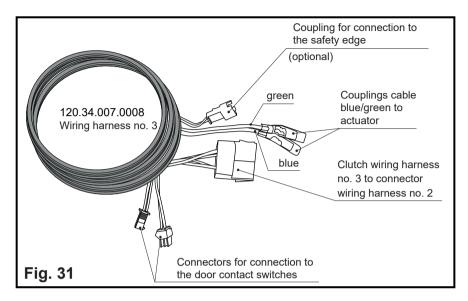
- If necessary, bend the lever of the door contact switch.
- The switch rollers on the door contact switches must be pressed. In this case, the switch contacts are open.
- Check the function of the door contact switches on the inside and outside door handles immediately after installation. The switch contacts must be closed (switch rollers not pressed) when the inside or outside door handle is operated.

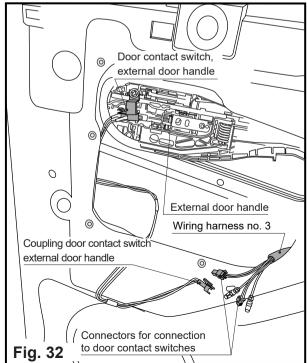












It is recommended to lay wiring harness no. 3 (Fig. 31) in the cavity of the sliding door from top to bottom from the door contact switch inside door handle and door contact switch outside door handle to connect cable harness no. 2 and cable harness no. 3, as shown on page 23 (Fig. 38 and Fig. 39).

The connection of the couplings of the door contact switches for the inside and outside door handles Fig. 32 to the plugs of the door contact switches

for the inside and outside door handles of wiring harness no. 3 is shown in Fig. 32 and Fig. 38 on page 24.

Mark the two holes on the sliding door body panel as shown in Figure 33. Drill two holes using a 6.5 mm drill bit (Fig. 33).

Secure the servomotor with two M6 x 12 screws (Fig. 33).

Drill a 5 mm diameter hole through the support plate (Fig. 33) and fasten the support plate with a 4.8 x 12 rivet.

Disconnect the bowden cable door lock on the vehicle side from the door lock and connect it to the drum in one of the possible holes so that the bowden cable is sufficiently tensioned, see Figs. 34 and 35.

Install the lock actuator cable (Fig. 35) on the outside handle instead of the standard cable.

Connect the two green and blue cables of the actuator to the two green and blue cables of wiring harness no. 3, see page 9 and Fig. 31, page 21.

After installation, adjust the Bowden cable with the adjusting screw so that

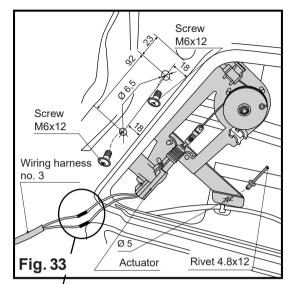


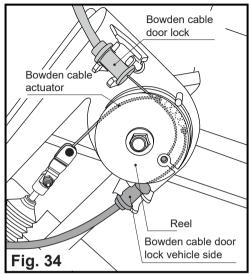
Vehicle unlocked:

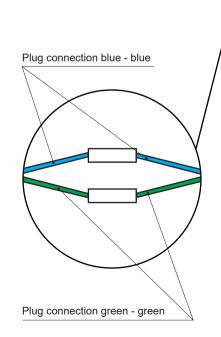
The sliding door can be opened from the outside using the door handle (emergency opening).

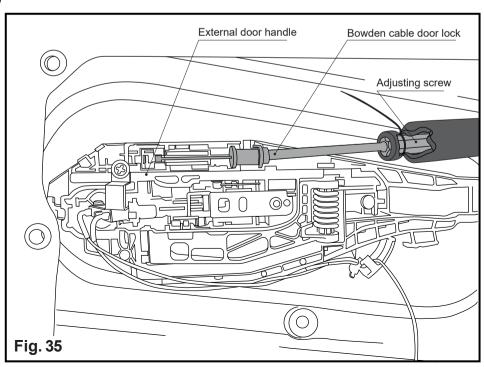
Vehicle locked:

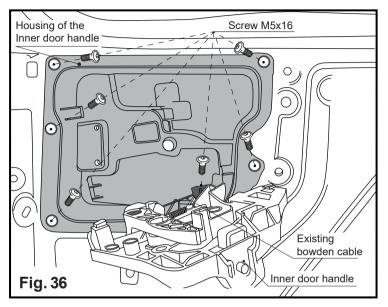
The sliding door <u>cannot</u> be opened from the outside using the door handle.

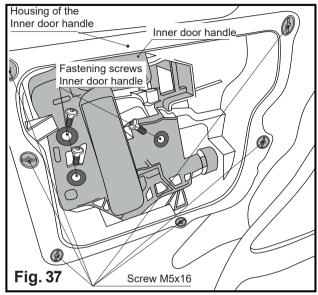












Door contact switch
External door handle

One of the plugs wiring harness no. 3

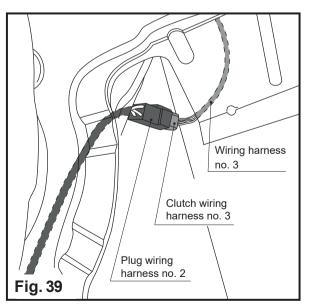
Actuator

Door contact switch Inner door handle

Wiring harness

no. 3

Fig. 38



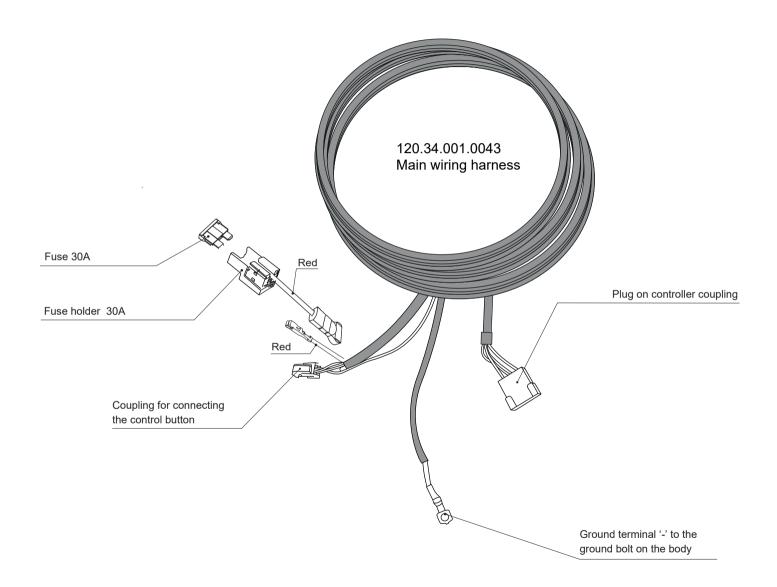
Secure the door handle housing on inside with 6 M5x16 screws (Fig. 36, Fig. 37).

Secure the existing bowden cable to the door handle on inside, Fig. 36 and Fig. 24, page 19.

Secure the door handle on inside using the three fixing screws (Fig. 37).

Check the function of the door lock using the door handles on outside and inside.

Connect wiring harness no. 3 to wiring harness no. 2 as shown in Fig. 39 and on page 9.



# Plug on coupling of controller Main wiring harness Ground terminal ,-' Stud bolt M6x14 Fig. 41

# 6.7 Installation of the main wiring harness

The starting point of the main wiring harness is shown in Figures 40 and 41.

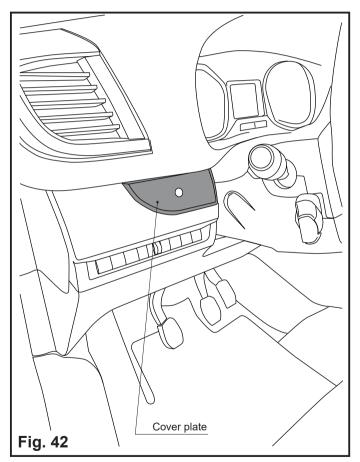
Attach the ground terminal '-' to the M6x14 stud bolt using the M6 fan washer and M6 nut from the fastening material, as shown in Fig. 41.

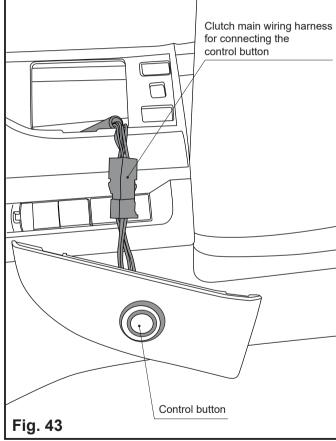
Next, lay the main wiring harness according to the cable routing plan on page 10.

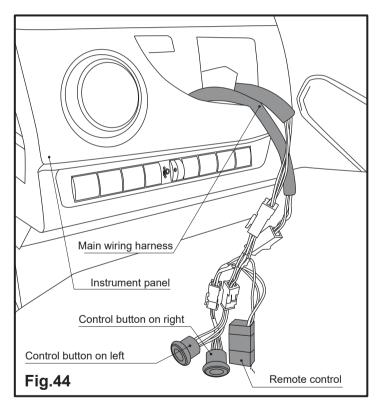
Install the main wiring harness under the instrument panel to connect the control button (Fig. 42).

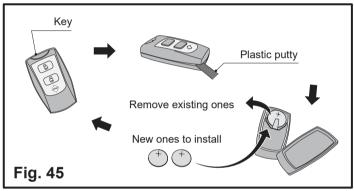
Remove the cover plate and drill a 23 mm diameter hole for the control button (Fig. 42). Deburr the edges of the drill hole.

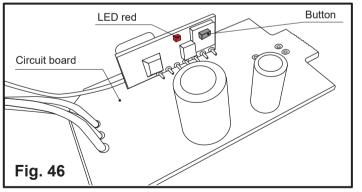
Feed the main wiring harness through the openings in the instrument panel and through the hole in the cover plate, then connect the control button plug (Fig. 43).











The optional remote control must be installed under the instrument panelwhere the left and/or right control buttons are connected.

Remove the plug connections from the two control buttons and connect the remote control between the right and left control buttons and the main wiring harness (Fig. 44) and page 8.

Repla

# Recommendation:

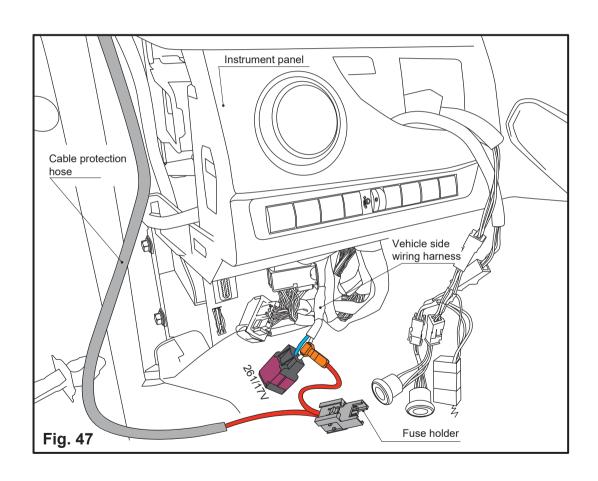
Replace the batteries in the transmitter with new ones before use.

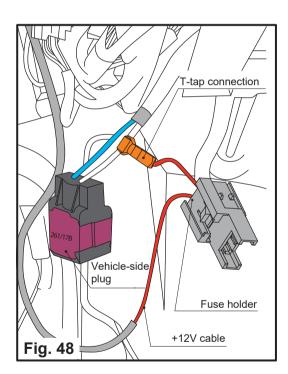
Battery type: CR2016 3V - 2 pieces Replace the batteries as shown in Fig. 45.

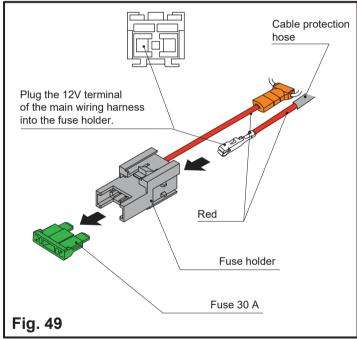
To add another key to the remote control, carry out the programming as follows:

- Remove the remote control, circuit board from the protective housing of the remote control, (Figure 45).
- 2. Press the button on the remote control, circuit board once and release it (Figure 45).
- 3. Press and hold the button on the key until the LED on the remote control,circuit board flashes (Fig. 45).
- 4. Reinsert the remote control, circuit board into the protective housing and reattach the remote control..

Install the +12V cable from the main wiring harness under the instrument panel (Fig. 47).







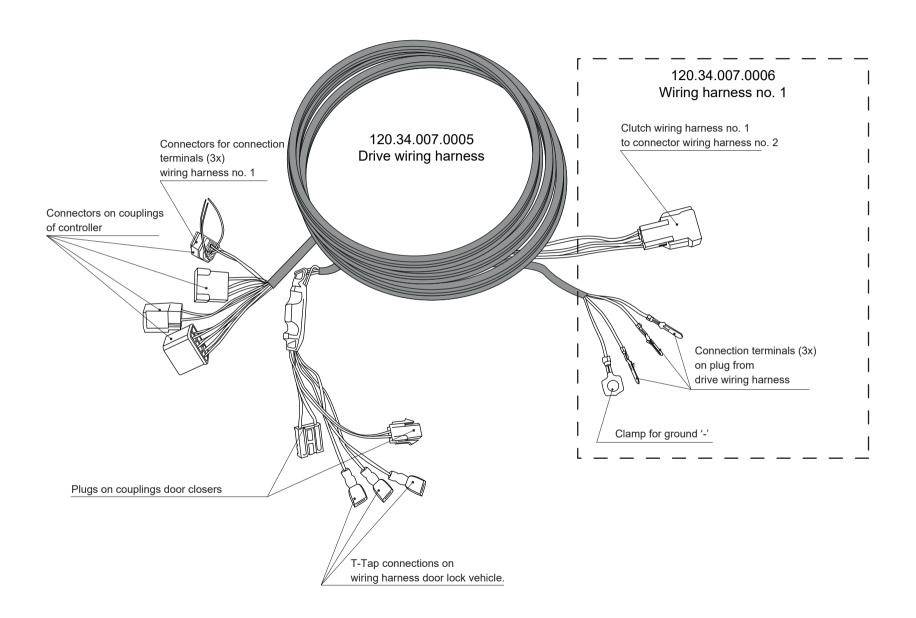
Select the white cable with a large cross-section from the vehicle-side connector 261/17V (Fig. 48).

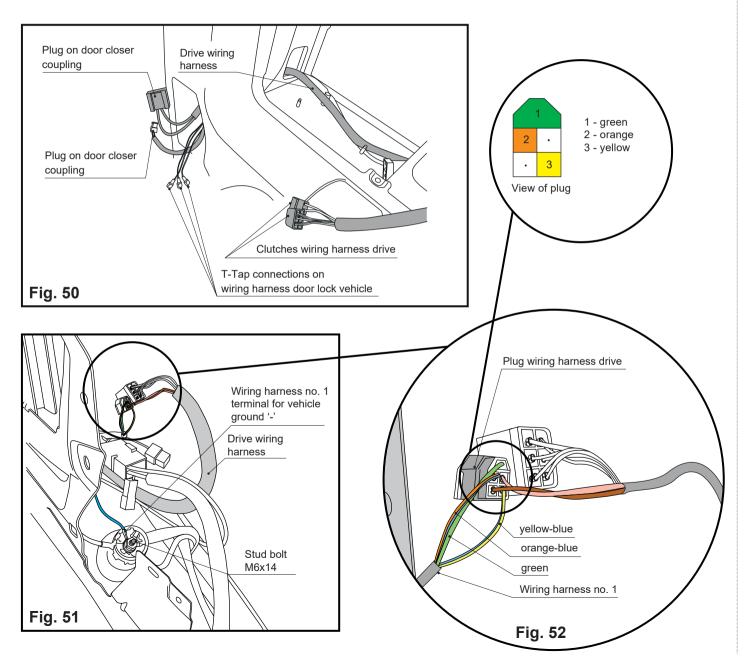
Check that this cable has a constant voltage of +12V (starter battery).

Connect to the red cable of the fuse holder by first removing the fuse from the fuse holder. Enclose the white cable with the T-tap of the red cable and press the T-tap together, e.g. with combination pliers (Fig. 48, Fig. 49).



For a clean connection at the red and white cable terminals, strip a 12 mm section (T-tap contacts) of the white cable.





# 6.8 Installation of the drive wiring harness

The connection point between wiring harness no. 1 and connector wiring harness no. 2 is located in the door sill under the cover on the door sill (Fig. 18 on page 22).

Only connect this plug connection after reinstalling the door.

The illustrations show the drive wiring harness and the connections to the door closer.

Secure the ground terminal '-' to the M6x14 stud bolt with the M6 fan washer and M6 nut from the fastening material, as shown in Fig. 51.

The three 'coloured' connection terminals must be plugged into the connector on the drive cable harness (Fig. 51, Fig. 52).

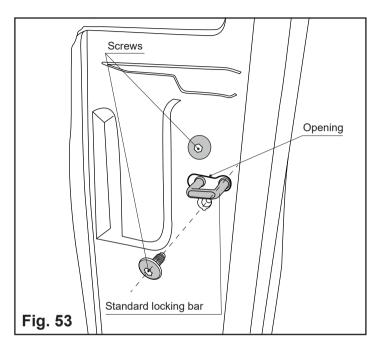
Remove the standard locking bar by unscrewing the two fixing screws, as shown in Figure 53.

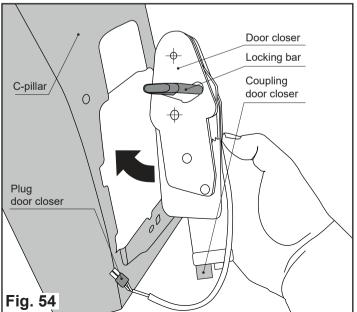
Insert the door closer from the inside through the opening and secure the door closer with the two screws as shown in the figures (Fig. 53, Fig. 54).

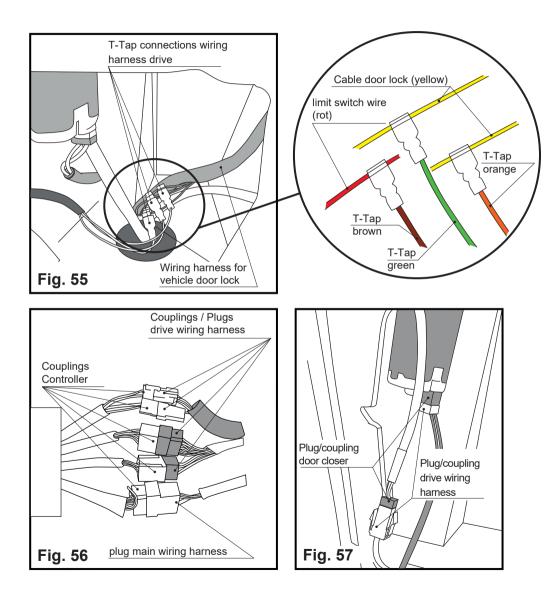
0

Adjust the position of the door closer so that the closing bracket does not touch the edge of the opening (Fig. 53).

To ensure that the closing bracket enters the door lock without jamming, it may be necessary to use the spacer plates provided.







The connection point between the drive wiring harness and the vehicle door lock wiring harness is shown in Fig. 55.

Establish a connection with the vehicle door lock cables.

Enclose the coloured cable with the T-tap of the corresponding cable and press the T-tap together, e.g. with combination pliers (Fig. 55).

Connect the plugs/couplings of the drive wiring harness and main wiring harness to the couplings/plugs of the control unit (Fig. 56).

Connect the plug and coupling of the drive wiring harness to the coupling and plug of the door closer, as shown in Fig. 57.

For clean contact at the cable connections, strip a 12 mm section (T-tap contacts) of the corresponding cable.

If the polarity is incorrect when connecting the green and orange cables of the drive cable harness, this will cause malfunctions in the PYTHON drive; see also page 44. In this case, swap the green and orange cables and reconnect them to the two yellow cables.

Loosen the M6x20 screw securing the centre guide rail (Fig. 58).

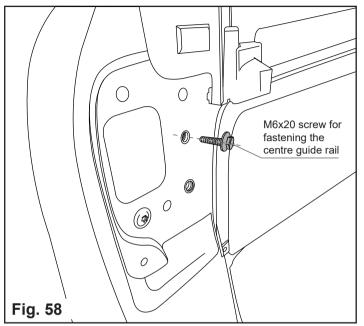
Place the template on the C-pillar and mark it with a marker as shown in the illustrations (Fig. 59, Fig. 60).

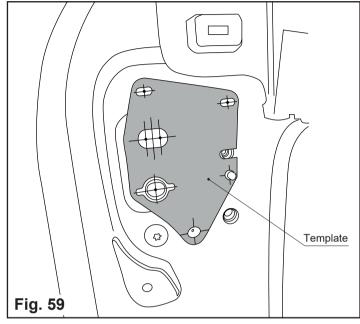
Drill three Ø 7 mm holes for the M5 rivet nuts and rivet the M5 rivet nuts as shown in the drawings (Fig. 60, Fig. 61).

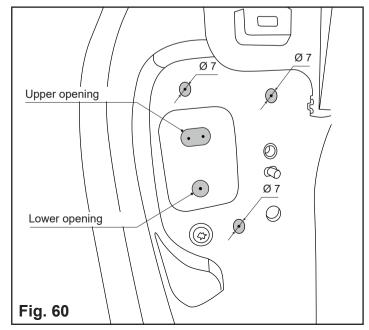
Drill the upper oval hole for the front roller guide bushing as shown in the illustrations (Fig. 60, Fig. 61).

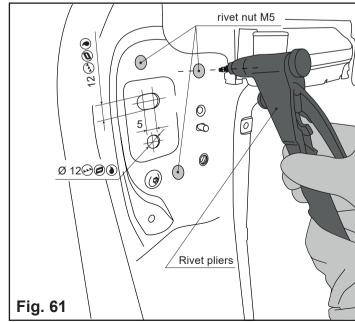
Drill the lower Ø 12 mm hole for the cable pull as shown in the illustrations (Fig. 60, Fig. 61).

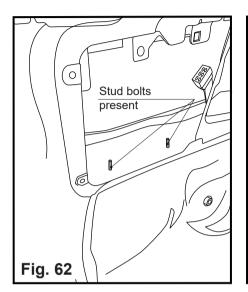
The template can be cut out on page 49.

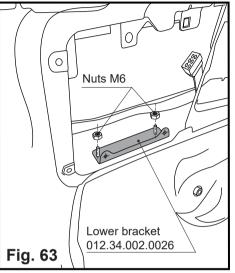


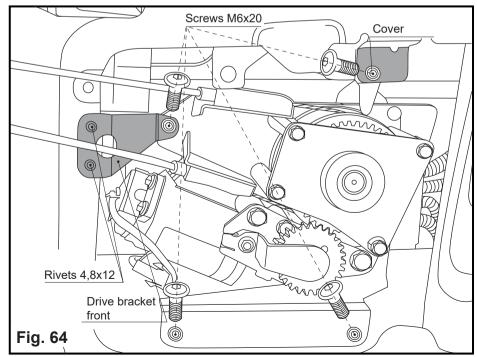












Secure the lower bracket in the cavity of the side panel to the two stud bolts using two M6 nuts (Fig. 62, Fig. 63).

Secure the drive in the upper part of the body cavity using an M6x20 screw (Fig. 64).

Drill two holes with a diameter of 5 mm for mounting the drive bracket at the front. Secure the bracket with 4.8x12 rivets (Fig. 64).

Secure the drive with the remaining three M6x20 screws and check that it is firmly in place (Fig. 64).

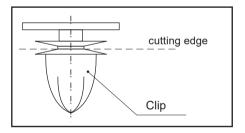
Insert the guide tube with one end of the drive rope into the upper hole and the other drive rope into the lower hole (Fig. 65, Fig. 66).

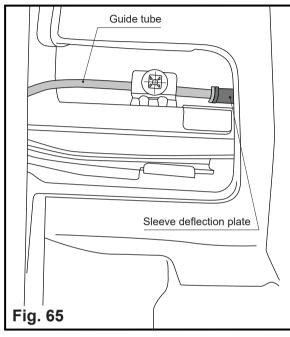
Secure the deflection plate with three M6x12 screws and the M6x20 screw Fzg. (Fig. 68).

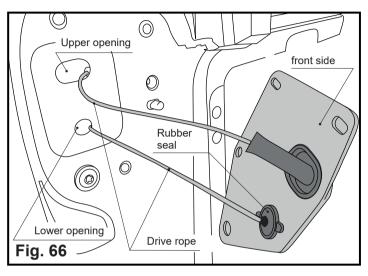
Secure the guide tube in the area of the front roller (Fig. 65) and secure the other end of the guide tube with the clip (Fig. 67).

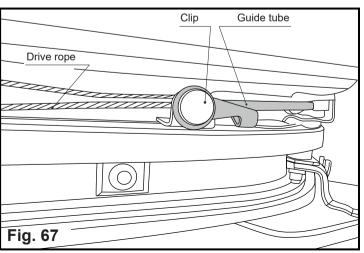
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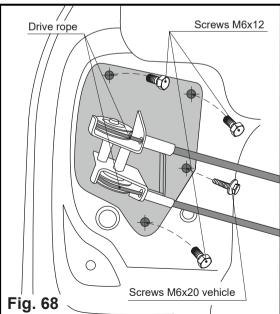
The clip must first be removed from the cover.
Shorten the clips, see sketch.

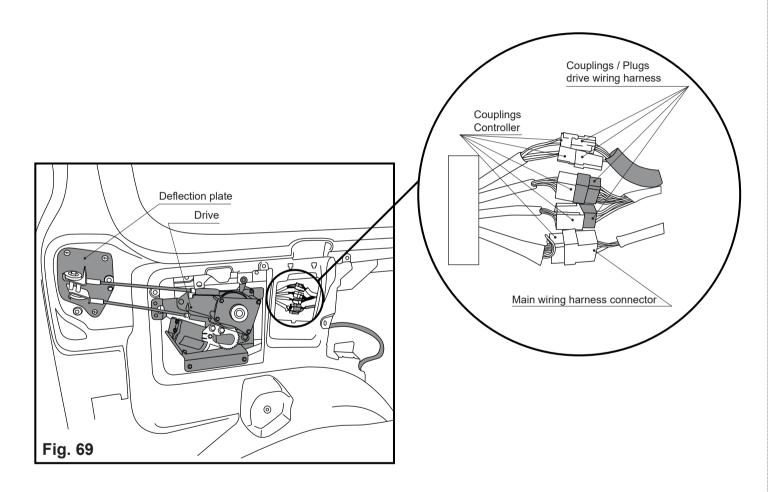










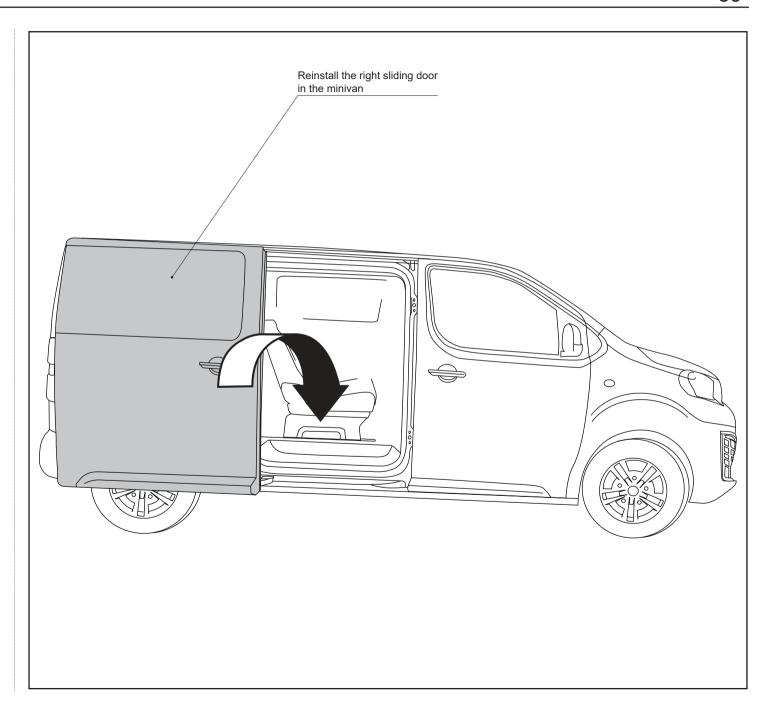


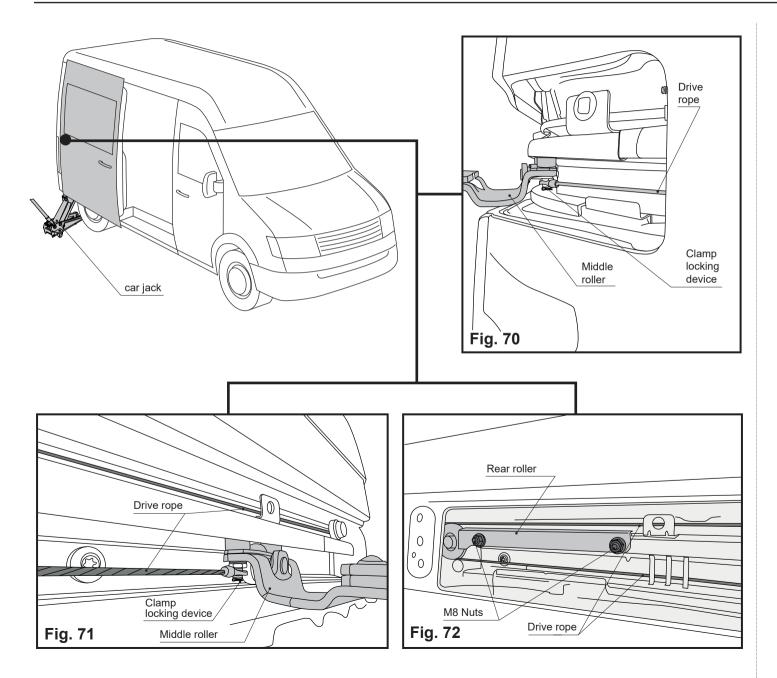
The connection of the main wiring harness and the drive wiring harness to the control unit is shown in Figure 69.

Carefully reinstall the right sliding door back into the minivan:

- Push the upper roller of the door into the upper door guide.
- Lift the rear pillar of the door upwards.
- Insert the lower slide into the lower guide.
- Loosen the rear door support.
- Pull the rear door pillar away from the side panel.

Lift the rear door pillar slightly and place a jack under the rear door pillar using a jack or hand lift, as shown in the illustration on page 40.



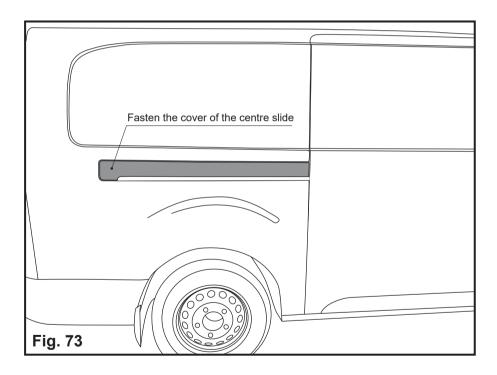


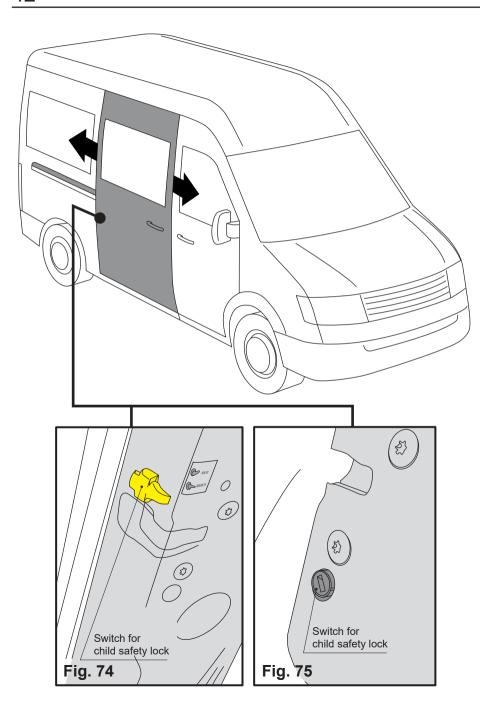
Attach both ends of the drive rope to the middle slide on the rear door post side to the axles of the front and rear slide rollers and secure them with two retaining clips (Fig. 70, Fig. 71) and (Fig. 3 on page 47).

Insert the middle door carriage into the middle guide rail, securing the ends of the drive rope (Fig. 70, Fig. 71).

Fit the rear roller in place of the standard lift limiter, with the drive rope already threaded through the roller. When installing the rear roller, overcome the resistance of the drive rope to tension it, place the rear roller in position and secure it with standard M8 nuts (Fig. 72)

Fasten the upholstery, seats and cover of the centre slide in reverse order (Figure 73).





Familiarise yourself with the rules before commissioning

Before commissioning the sliding door. To commission the sliding door, you must insert the fuse into the fuse box, then plug the fuse into the fuse strip, whereupon a long beep will sound and the control button light will illuminate. and the indicator light on the control button will light up. Basic. Check the function of the Python drive with all controls in accordance with the description of the drive function and parameter settings of the Python sliding door drive.

## **DRIVE FUNCTIONS**

- Opening and closing the sliding door
  To open or close the sliding door,
  press the control button or remote control once
  or pull on the sliding door handles.
  The sliding door starts moving as soon as one
  of the buttons is pressed or one of the sliding
  door handles is pulled.
  The system automatically determines the
  direction in which the door should move
  depending on whether the door is closed or open.
- Forced termination of the process
   Opening or closing the sliding door
   If you want to stop the opening or closing process of a sliding door, you must force the sliding door to open or close.
- Automatic rejection

  If the sliding door encounters an obstacle when closing, it will automatically stop and roll back.

  If the sliding door is equipped with a safety profile (optional; recommended), the safety of the drive is increased and the automatic reverse lock is more sensitive.
- Acoustic signal Accompanies the operation of the drive.

#### FIRST START

- Manual opening/closing of the sliding door in the event of a malfunction of the Python actuator or an accident
- 1) Remove the 30 A fuse from the fuse block located under the driver's dashboard, as shown in Figure 1 on page 29.
- The sliding door can be moved manually.
   This requires minimal force to move the sliding door to the closed or open position.
- Door lock for passenger safety
  The door lock or 'child safety lock' allows you
  to lock the inside door handle while the
  minivan is in motion to prevent the sliding
  door from being opened accidentally. To
  activate this mode, the child safety lock
  switch on the rear of the sliding door must be
  turned on (Figures 74 and 75).



## NOTICE



The closing speed and opening width of the sliding door must be adjusted before operation.

#### **DRIVE SETTING**

Adjusting the door speed

- 1) Press and hold the main control button for 10 seconds and release it after a double beep.
- 2) Press the button briefly to start the cycle for opening or closing the door.
- 3) To increase the speed, press the button several times while the door is opening. Each press increases the speed by one level.
- 4) To decrease the speed, press the button several times while the door is closing. Each press decreases the speed by one level.
- 5) To save the selected door speed, press the main control button. Wait for two beeps (the first when you press the button and the second after 2-2.5 seconds), then release the button, followed by a long beep to save the parameters and exit the setting mode, or do not press the button for 25 seconds, then the system will exit the setting mode by itself and save the changed parameters.



#### NOTICE

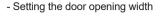


- To ensure safety when adjusting the door speed, make sure that no persons are standing in the doorway or near the door.
- The parameters are set while the minivan's engine is running!
- The opening and closing speeds of the door are the same and are set at the same time.
- The values of the adjustable parameters can be changed while the door is moving!!!



## NOTICE





- 1) Press and hold the main control button for 20 seconds until you hear three beeps. Release the button.
- 2) Move the sliding door to the desired position with your hands.
- 3) To save the selected door opening width, press the main control button. Wait for two beeps (the first beep sounds when the button is pressed and the second after 2-2.5 seconds), then release the button, followed by a long beep to save the parameters and exit the setting mode, or do not press the button for 25 seconds, then the system will exit the setting mode by itself and save the changed parameters.
- When adjusting the door opening width, the door must not touch the door stop.
- In adjustment mode, the opening and closing cycle begins in the same way as in normal operation. Unlike in normal operation, however, the door movement is not accompanied by acoustic signals. In addition, the STOP and AUTO RELEASE functions are deactivated in adjustment mode.
- When the system is in setup mode, short signal tones are emitted once per second.

### RETURN TO FACTORY SETTINGS

Press and hold the control button for approximately 25 seconds until a long beep sounds. Release the control button. All drive settings will be reset to factory defaults. After resetting to factory settings настройки необходимо заново настроить привод.

When entering the vehicle, the door must open if it is closed or close if it is open!



FAILURE	PROBABLE CAUSE
When the control button is pressed, the door does not open and there is no characteristic clicking sound from the lock actuator or the control buzzer.	<ol> <li>No power supply to the drive.</li> <li>The drive control button is defective.</li> <li>the controller of the drive control is defective.</li> </ol>
Pressing the button unlocks the lock, but the door does not open.	The drive motor is not running.     The drive control regulator does not work.
Pulling the outside handle of the parked vehicle on the central locking system causes the control buzzer to sound and the door to open, but the lock is not unlocked.	Poor connection in the harness piercing contacts.     The polarity of the wires of the piercing contacts is swapped.     Locking relay defective.
When the control button is pressed, the door opens to its maximum width and hits the rubber buffer. Further pressing of the control button activates the locking actuator and the door opens even further.	Door drive encoder does not work.
When the door is closed and the control button is pressed, the door closer extends, but the door does not open. Pressing the button again will cause the control unit to emit a signal, but nothing else will happen. When the door is open, pressing the control button will cause the door to close and the door closer to retract. Each subsequent press of the button will perform the actions described above.	Door closer dispenser does not work.
If the button is pressed while the door is closed and the door closer is retracted, the control unit will beep, but nothing else will happen. If the button is pressed while the door is open and the door closer is retracted, the door opens and closes, but does not return to the opening.	1. Door closer gear motor doesn't work.
When the button is pressed, the door closer extends, but the door does not open and the characteristic click of the lock actuator is not heard.	The closer drive is defective.     Wire breakage in the flexible cable duct of the door.
Pressing the control button opens the door. Pressing it again causes the control unit to beep and the locking actuator to be activated, but the door does not move.	The sensor for the closed door position (closing end switch) is interrupted.
Pressing the button opens and closes the door, but it is not pulled into the opening.	The circuit of the door closing position sensor (locking limit switch) is short-circuited to "ground".
Pressing the control button does not open the door and the door closer does not extend.	Door closer dispenser does not work.     Poor connection in door closer wiring harness.

Remove the middle car from the sliding door. Disassemble the conductor by removing the two M6 screws (Fig. 76, Fig. 77).

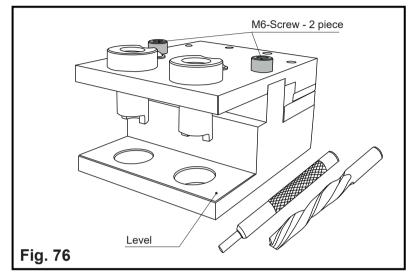
Using the special tool of the conductor, a drill bit 10 and a walker, drill out and remove the lower parts (flats) on the two standard guide rollers of the middle carriage, front and rear (Fig. 76, Fig. 77, Fig. 78, Fig. 79) and (Fig. 1, Fig. 2, Fig. 3, Fig. 4 on page 46).

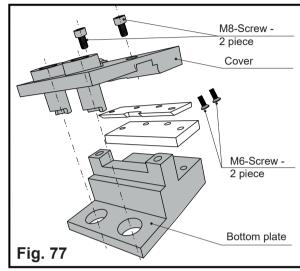
The level must be purchased separately.

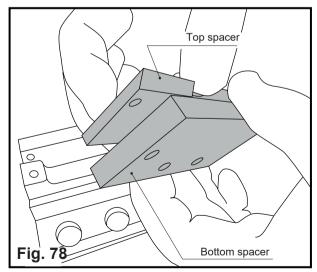
The upper spacer is used to change the middle carriage assembly (not adjustable and not collapsible).

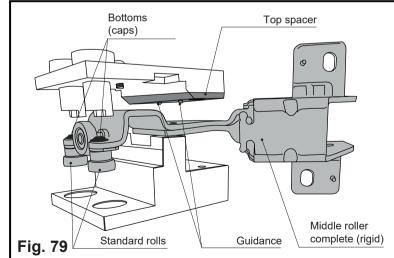
The lower spacer is used to modify the middle carriage part (adjustable and collapsible).

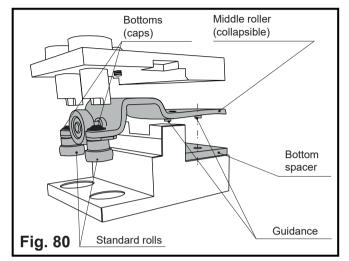
Attach the top spacer to the top plate with two M5 screws and slide the entire center slide (not dismantled) into the ladder using the spacer guides.

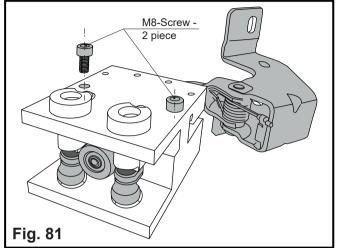


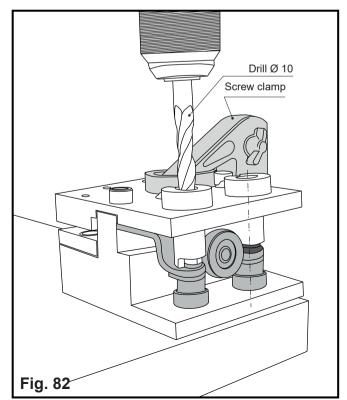


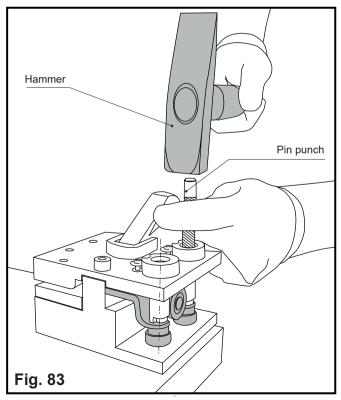












Attach the lower spacer to the lower plate with two M5 screws and insert the part of the middle roller (collapsible) into the conductor with the help of the guides on the middle roller (Fig. 80).

Attach the middle roller to the level with two M6 screws (Fig. 81).

Attach the conductor to the workbench with clamping pliers (Fig. 82).

Drill out the lower parts (flats) of the two standard guide rollers (Fig. 82) and (Fig. 4 on page 45) using the included 10-mill bit.

Before drilling, lubricate the 10-mill drill with oil or WD-40 tool lubricant.

Knock the rollers out of the middle car with a hammer and a pin punch (Figure 83).

Dismantle the line in reverse order and remove the complete centre carriage without rollers from the line (Fig. 84).

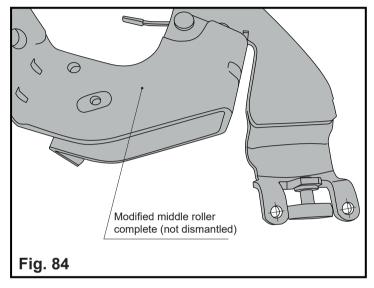
Assemble and attach the rollers to the complete carriage (Fig. 86).

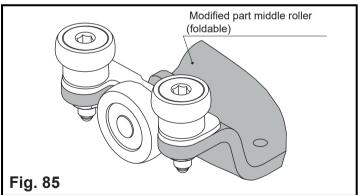


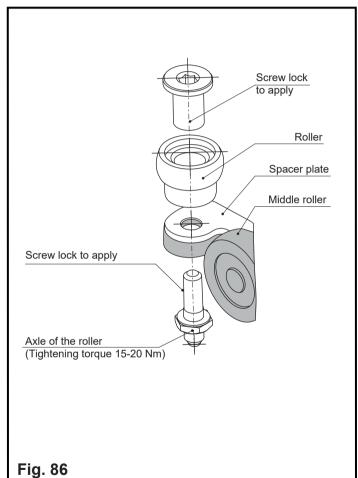
NOTE

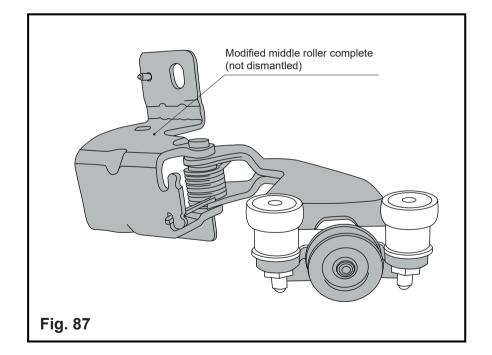


Do not attach the locking brackets at this stage of the centerline conversion.

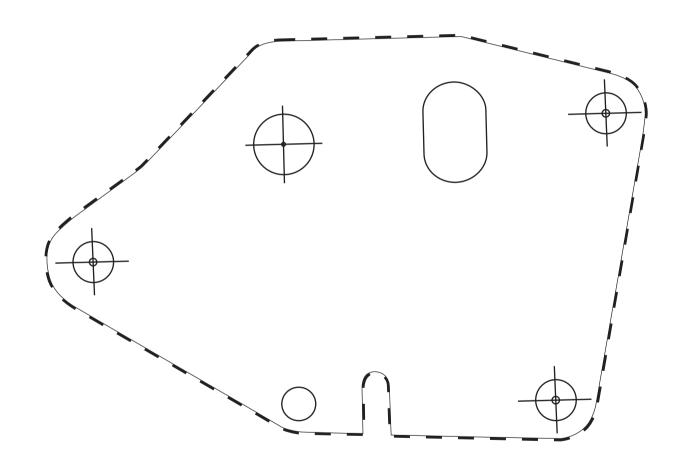








Mount the modified middle roller on the sliding door in reverse order.



# 12 Information

For warranty claims and service enquiries, please contact our representative in Germany

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