



# FITTING INSTRUCTIONS

making everyday smoother



- Increased comfort • Better driveability • More safety



**RENAULT MASTER**  
**OPEL MOVANO**  
**NISSAN NV400 INTERSTAR**  
**X62**

**Dual tyre RWD**  
**VB-FullAir 2C & 4C**

**FOR KIT: 1051924XXX**

## Revision table

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# 1. Safety regulations

## Personal safety regulations

- Always wear appropriate safety clothes and safety shoes.
- Do not wear any rings, watches, or free hanging clothes.
- Never keep any loose goods in pockets of clothes.
- Bind long hair together.
- Never use defect tools. Use tools only for the purpose where it is meant for.
- Wear safety goggles.

## General safety regulations

- Always use a car lift to perform the operations.
- Be sure the vehicle is always supported properly when necessary.
- Be sure the vehicle can not roll away.
- Incapable fitting operations may result in dangerous situations.

## Used Symbols

### Attention



***When the warning symbol is displayed, information of great importance to the safety and / or health of the involved persons is provided. This symbol is also used in operations that are crucial for the correct mounting of the air suspension set.***

### Tip



***When the tip symbol is displayed, advice is given to make the mounting of the air suspension set more easy.***

### Torque



***xx Nm***

***Every bolted joint in this manual comes with a torque.***

## 2. General fitting regulations

This manual has been carefully crafted to provide the best way to fit the air suspension mentioned on the cover of this manual. However, the manual is a random indication of the technical specifications at any given time.

VB-Airsuspension reserves the right to make technical changes in the air suspension kit without any notification.

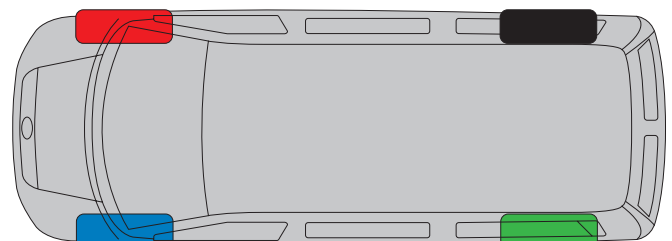
The warranty is only valid if the fitting is carried out in a specialist workshop. The fitting can only be done by authorised mechanics. The mechanics must have proper experience in electric/electronics, pneumatics and regular vehicle technics.

- When necessary, use the work-shop manuals of the vehicle.  
Always follow the directions of the vehicle manufacturer, unless otherwise expressly stated in this manual.
- Work clean.
- Always tighten the bolts and nuts according the recommended torque.
- Whenever changes are made to the original corrosion protection, restore it immediately. For this purpose use for example protective coating or spray wax.
- Always re-fit the removed wires and tubes on the original way.
- Always secure the wires and air tubes with plenty of tie-wraps. Secure all connectors properly and make sure that there is no stress on them.
- All electrical cables must be kept at least 100 mm away from the ABS/ESP block, its sensors and other controllers.
- Make sure the air-tubes do not make sharp corners and can not bend or wear against other parts.
- Connecting electrical cables or air-tubes to brake lines is strictly prohibited!
- Make sure no tools, cleaning rags or other materials remain under the car.
- Check the air suspension after finishing the fitting according the checklist.
- Check after the fitting, the system for air leakage.
- When finishing the fitting, always make a test drive.
- Make sure that the right calibration support are available, for this kit the right calibration support are:

Axle	Calibration height:	Partnumbers:
Front axle	SHF = 280 mm	-
Rear axle	X = 140mm	009 000 00 50

- The air-suspension is split up in four corners, which correspond to one corner of the vehicle. When a part is specific for one corner, this will be marked with a coloured sticker.

Color	Description
Green	Left rear
Black	Right rear
Red	Right front
Blue	Left front



### 3. Explanation to this fitting instruction

This fitting instruction is written for the air suspension kits for:

- Renault Master DRW X62
- Opel Movano DRW X62
- Nissan NV400 Interstar DRW X62

In this fitting instructions are the proceedings described to mount the air suspension on the front and/of rear axle. Depending which kit you ordered, you should follow only the chapters who corresponding with the kitnumber.

Have you ordered the air suspension for the rear axle with kitnumber 10519242XX, follow chapter 4 and 6.

Have you ordered the air suspension for the rear axle with kitnumber 10519244XX, follow chapter 4, 5 and 6. You should first mount the rear axle air suspension kit, then the compressorbox and at last the front axle air suspension kit.

A short overview on which chapter to follow:

Which axle?	Kitnumber	Chapter
Rear axle	105 19 24 2XX	4, 6
Front and rear axle	105 19 24 4XX	4, 5, 6

## 4. Mounting the air suspension

### 4.1 Preparations

1. Support the vehicle and the rear axle properly.
2. Remove the spare wheel.
3. Remove the torque arm brackets.
4. Remove the stabiliser-bar brackets.
5. Remove the stabiliser bar.



*The pictured vehicle is equipped with a roll stabiliser. It is possible that the vehicle you are working on is not. This does not affect the mounting of the air suspension.*



*The nuts and bolts will be re-used.*

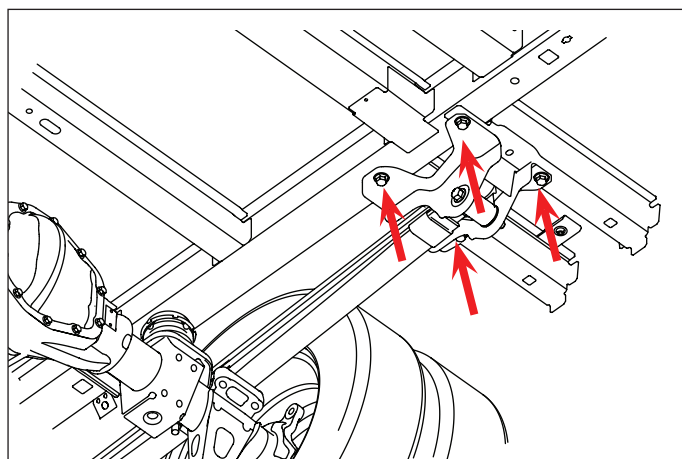
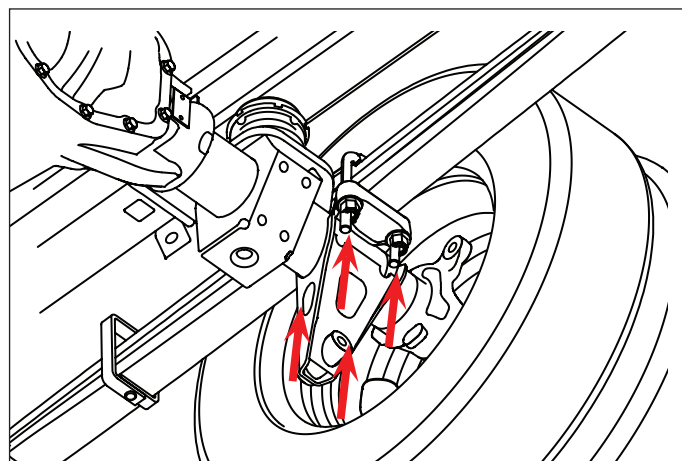
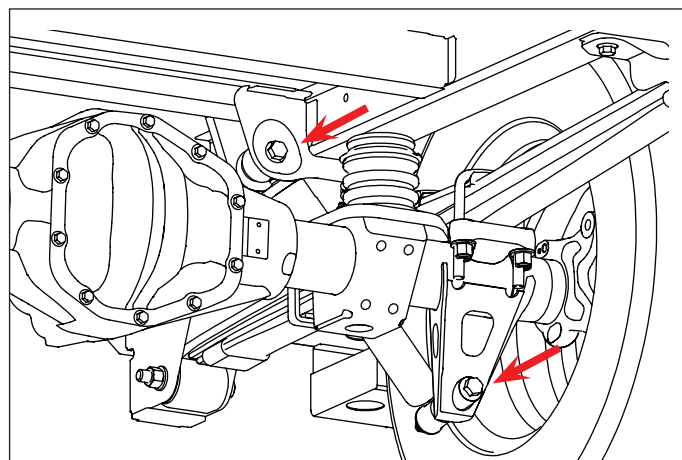
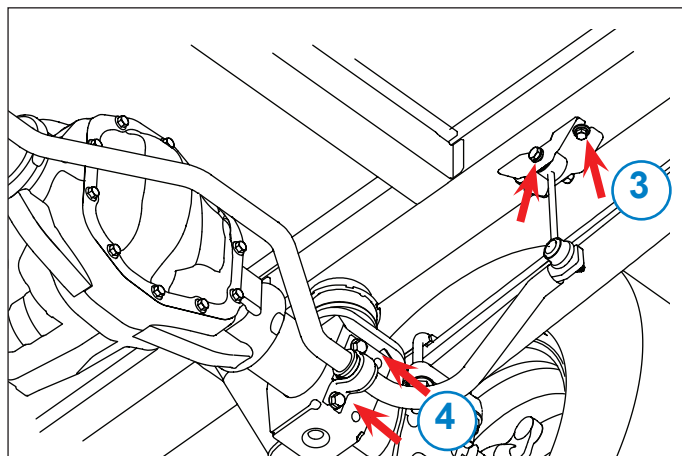
6. Remove the shock absorbers.



*The nuts and bolts will be re-used.*

7. Remove the leaf-spring U-bolts.
8. Don't remove the brake line bracket.

9. Remove the **rear** leaf-spring bracket.





10. Lower the axle.
11. Remove the **front** spring bolt.
12. Remove the leaf spring.

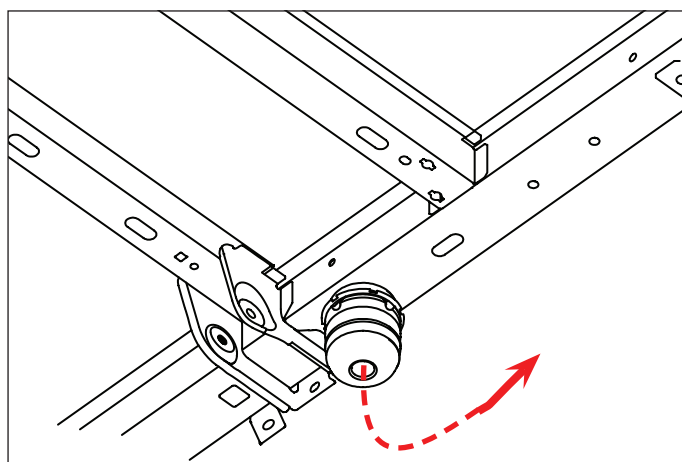
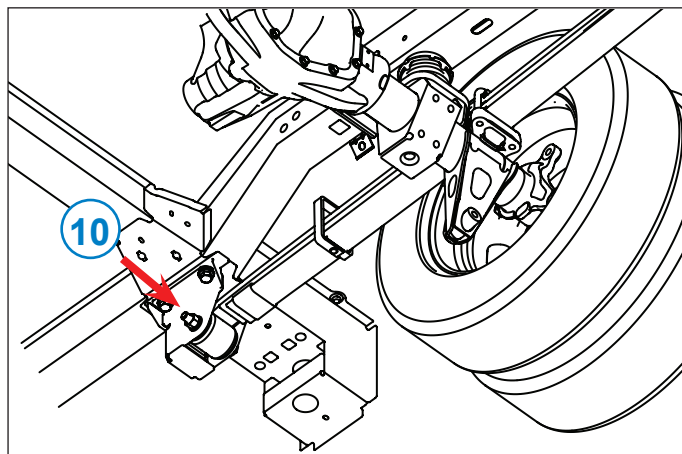


*Lower the axle, so the leaf-spring can be removed easily.*



*Protect the surface with an anti corrosion substance. For example: protective coating or spray-wax.*

13. Remove the bump stops.
14. Remove the bolt.
15. Remove the mounting bracket.



#### 4.2 Air tank

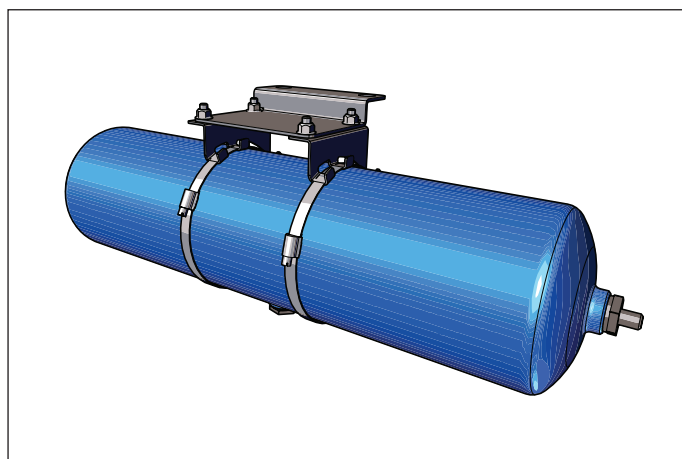
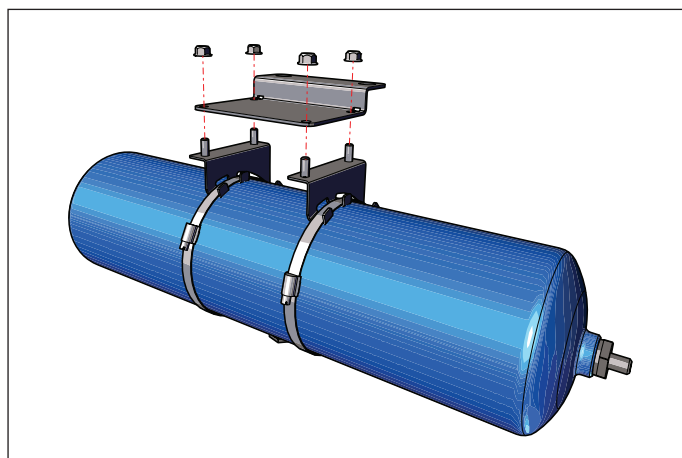
1. Fit the tank bracket to the brake clip brackets.

**4 x flange nut**

**M8**

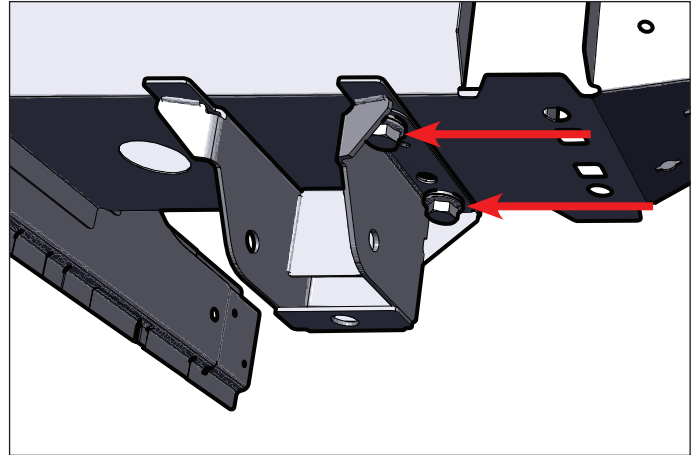


**20 Nm**

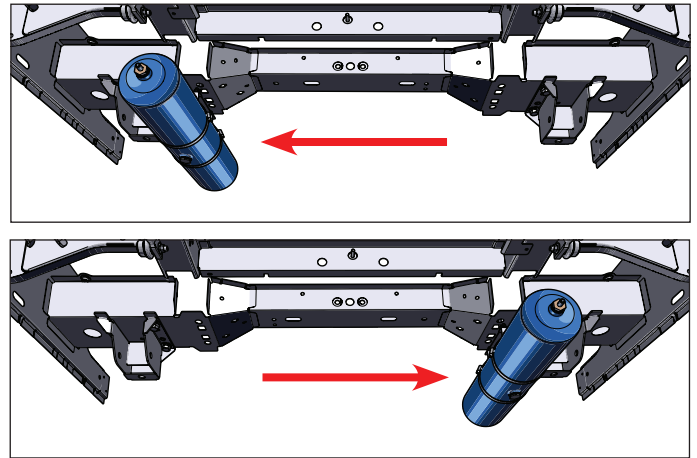




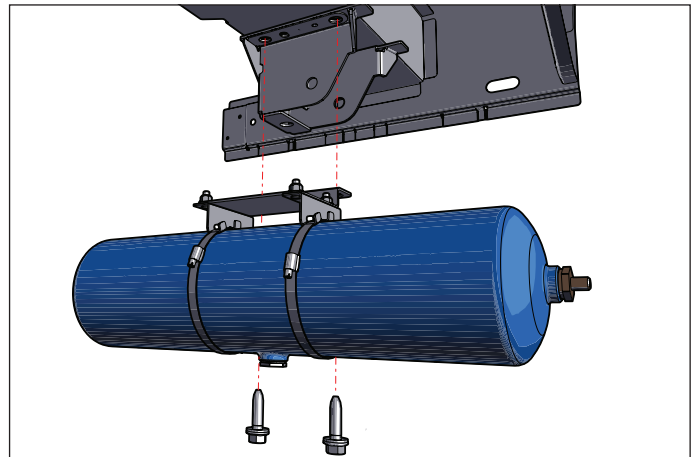
2. Fit the tank to the inside of the leaf-spring bracket.



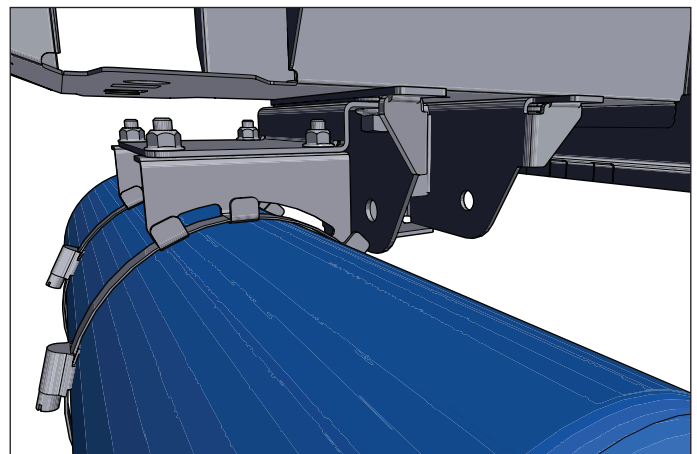
3. The tank can be fitted on the left or right.



4. Remove the two innermost bolts from the leaf-spring bracket.



5. Fit the tank using the bolts from the leaf-spring bracket.



### 4.3 Main springs

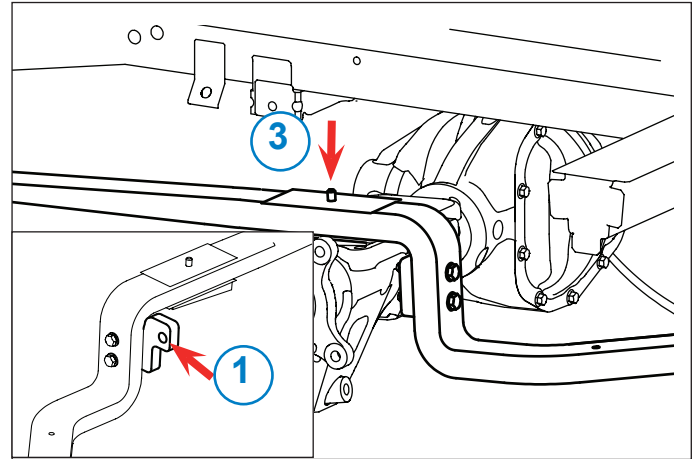
1. Mount the panhard rod bracket on the left main spring.



**100 Nm**

**2 x Bolt M12x80**  
**4 x Washer M12**  
**2 x Lock nut M12**

2. Place the main springs on the spring seats. The main spring with the panhard bracket is mounted at the **left-hand** side.
3. The centre bolt must fall in the hole of the spring seat.



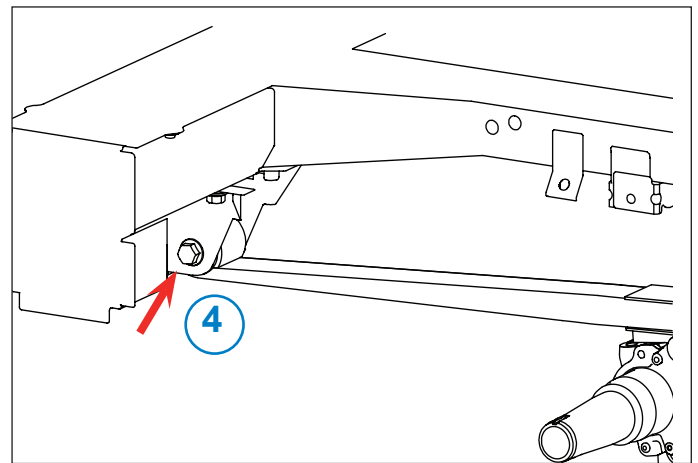
4. Mount the main spring in the front leaf-spring bracket. Use the original fasteners.

**\*\*Don't secure the nuts yet, the vehicle has to be in ride-height first.**

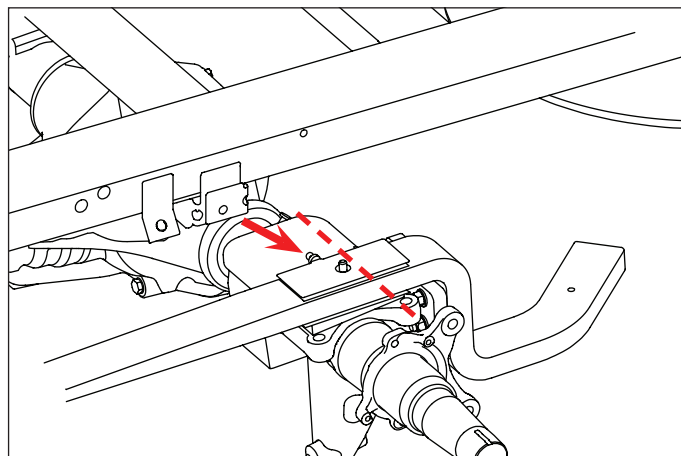


**180 Nm**

**2 x Original fasteners\*\***

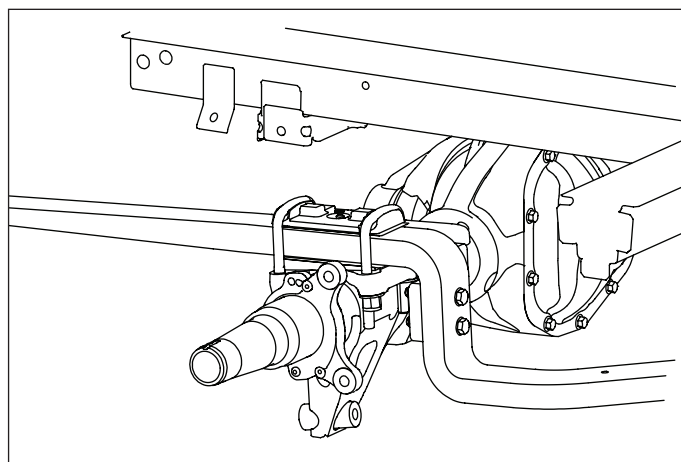


5. Place the ball-joint bracket on the main spring. The ball-joint of the ball-joint bracket must be pointed to the front and centre of the vehicle.



6. Place the spring plates on the ball-joint brackets.
7. Mount the U-bolts. Use anti-seize compound on the screw thread.

**\*\*Don't secure the nuts yet, the vehicle has to be in ride-height first.**



**130 Nm**

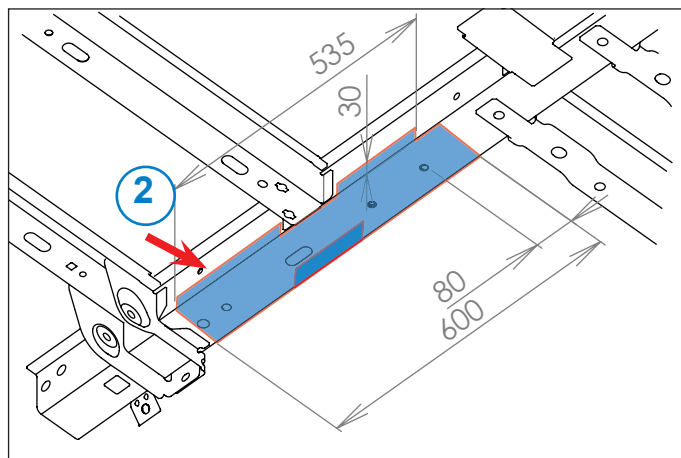
**2 x Original fasteners\*\***

#### 4.4 Upper cross beam

1. Remove the axle breather tube from the chassis.
2. Remove the protective layer from the chassis by using e.g. a paint scraper:



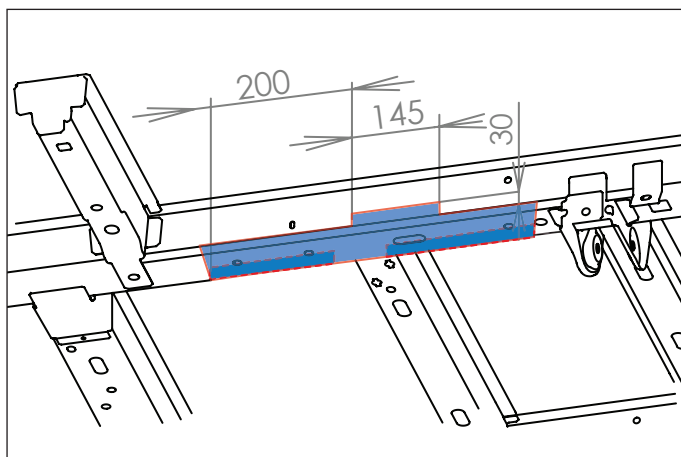
**Protect the surface with an anti corrosion substance. For example: protective coating or spray-wax.**



3. On the outside of the chassis for the given dimensions.



**Make sure all of the protective layer is removed from the contact area between the chassis and upper cross member.**

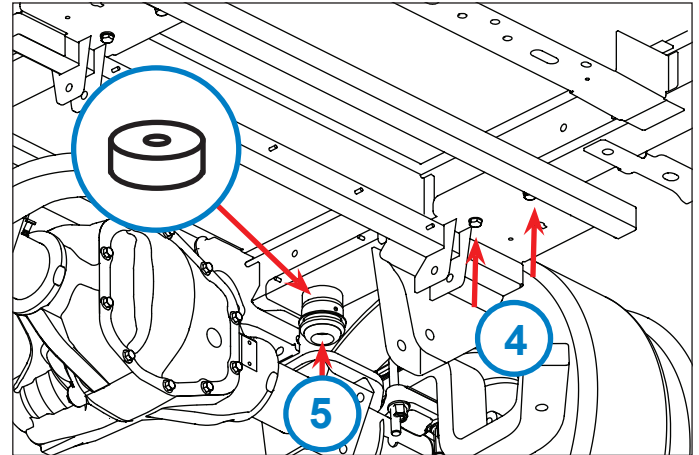


4. Mount the upper cross beam to the chassis.  
The front holes match the holes for the bump stops.

	<b>4 x Bolt M8x30 (4)</b> <b>4 x Washer M8</b>
<b>30 Nm</b>	

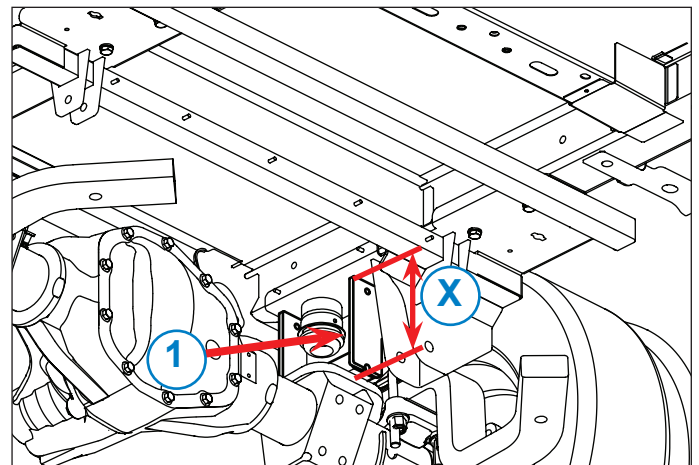
5. Mount the new bump stops with the spacers.

	<b>2 x Bolt M10x55 (5)</b> <b>2 x Washer M10</b>
<b>60 Nm</b>	



#### 4.5 Panhard rod

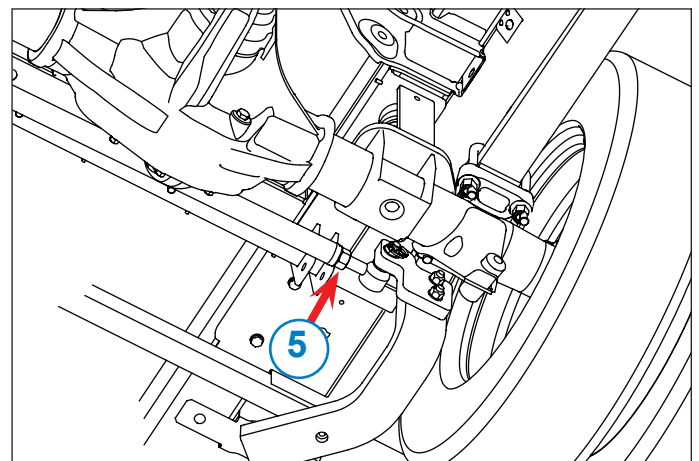
1. Check whether the height **X** of the calibration support is **140 mm**.
2. Put the vehicle on the calibration supports.



3. Mount the panhard rod ball-joint on the panhard rod bracket.

	<b>1 x Washer M14</b> <b>1 x Castellated nut M14</b> <b>1 x Split pin</b>
<b>75-85 Nm</b>	

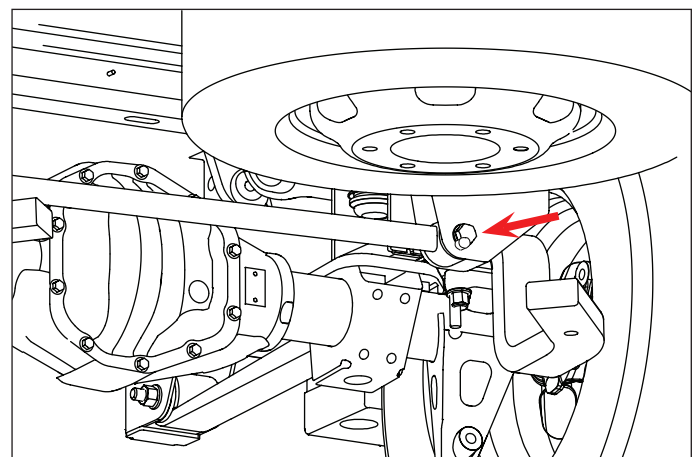
4. Secure the castellated nut with a split pin.
5. Mount the panhard rod on the ball-joint. Use anti-seize compound on the screw thread.



6. Mount the other side of the panhard rod on the upper cross beam.

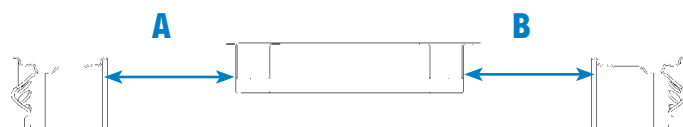
**\*\* Don't secure the bolt yet.**

	<b>1 x Bolt M16x90**</b> <b>1 x Lock nut M16</b> <b>1 x Washer M16</b>
<b>180 Nm</b>	



**The next step can only be performed, when the vehicle is at ride-height!**

7. Measure the distance **(A)** between the chassis and the rim edge on the left-hand side.
8. Measure the distance **(B)** between the chassis and the rim edge on the right-hand side.
9. If the distance between left and right is more than 2 mm, loosen the lock nut and remove the panhard rod bolt.  
Turn the panhard rod:  
- Left: when  $A < B$   
- Right: when  $A > B$



$$A = B \pm 2 \text{ mm}$$



**By rotating the panhard rod 1 turn, the adjustment of the displacement is 1.5 mm**

Size difference > 2mm, Adjust!  
Size difference < 2mm, Go further!

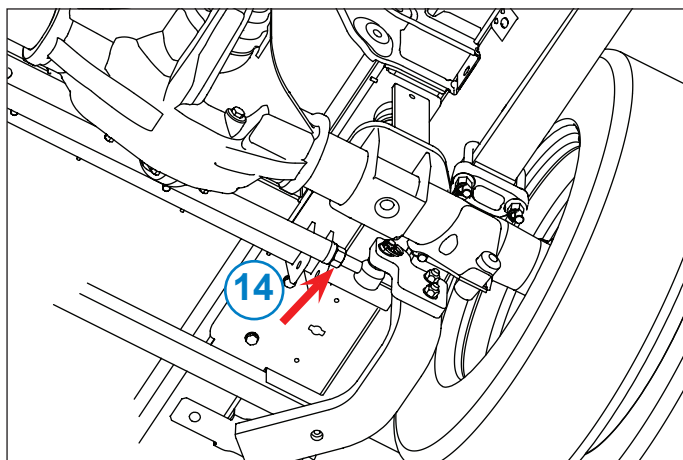
10. Secure the lock nut.



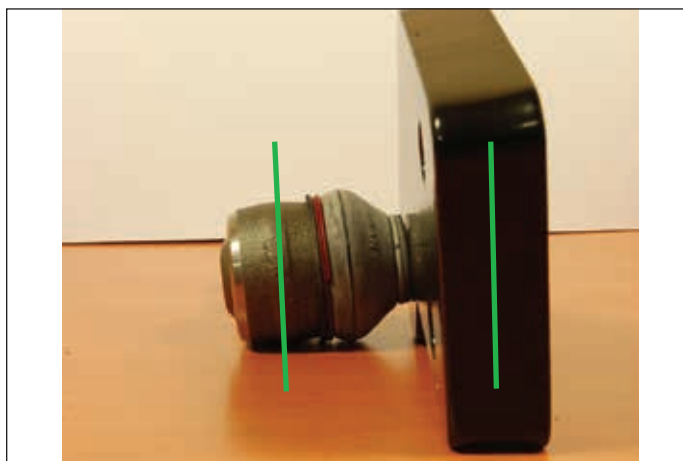
**Nut in delivery content**

**60 Nm**

11. Secure the bolts from section 4.3 step 4.
12. Secure the bolts from section 4.3 step 7.



**The ball joint should be parallel with the panhard bracket, see the green lines.**



#### 4.6 Air springs

1. Mount the air couplings to the air springs. These must be pointing to the centre of the vehicle.



**Air couplings**

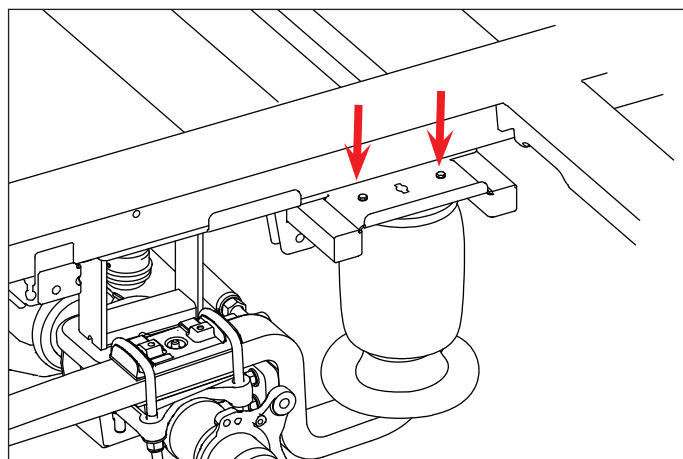
**5 Nm**

2. Mount the air springs to the upper spring-plates.



**4 x Bolt M6x12  
4 x Washer M6**

**8 Nm**



3. Pull the plug out from the underside of the air springs.
4. Mount the piston with the plate to the underside of the airspring.
5. Mount the air spring on the main spring.

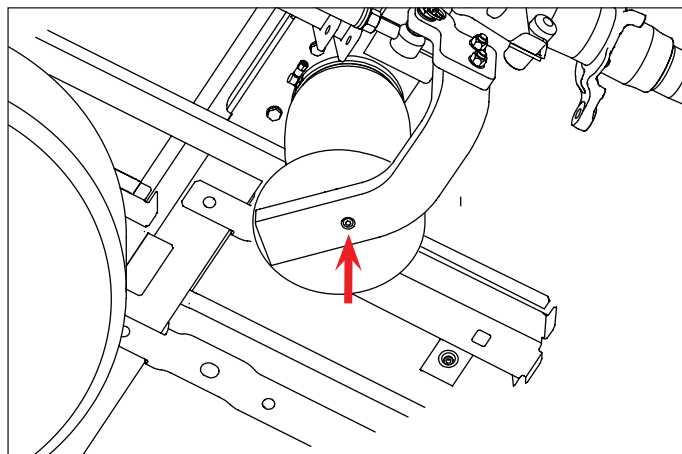


**8 Nm**

**2 x Bolt UNC 3/8 x 2 1/4"**  
**2 x Washer M10**

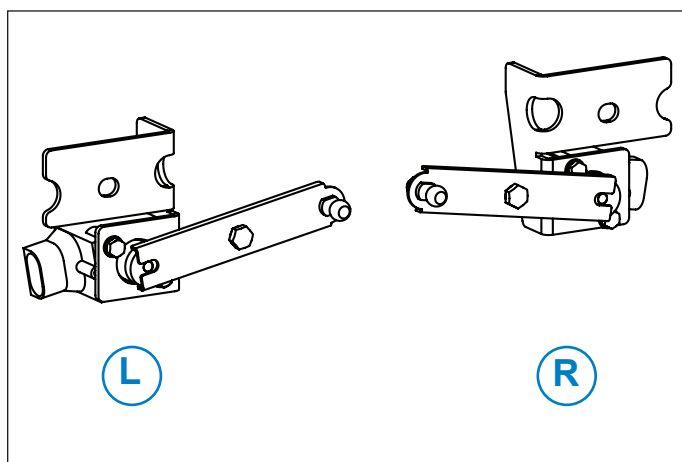


**Secure the bolts when the air-springs are on pressure. So they don't get distorted.**



#### 4.7 Height sensors

1. Note that there is a **left** and a **right** version.

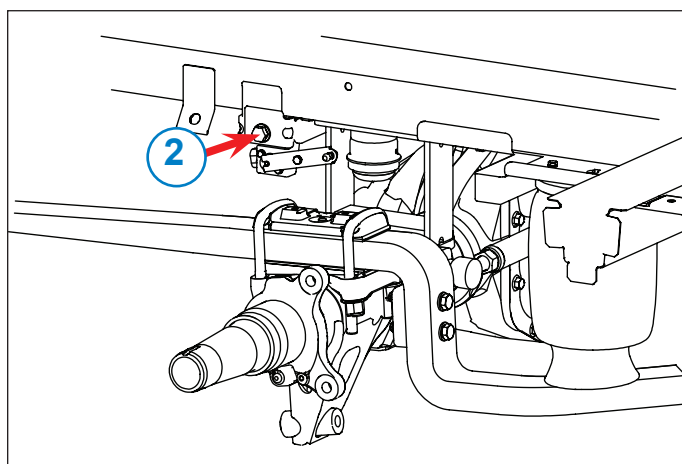


2. Mount the height sensor brackets on the marked position.



**30 Nm**

**2 x Bolt M12x25**  
**2 x Washer M12**  
**2 x Lock nut M12**



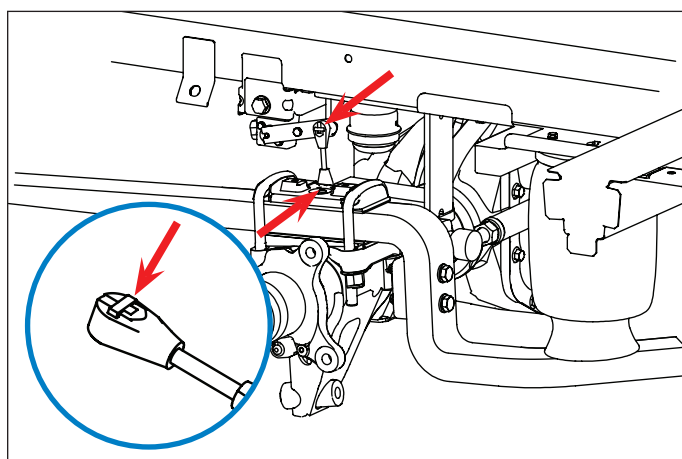
3. Mount the height sensor rods to the height sensors.
4. Mount the height sensor rods to the ball-joints brackets.



**The height sensor arm must be pointing to the back of the vehicle!**



**Secure the height sensor arms, by pressing the clips**





#### 4.8 Shock absorber

1. Before mounting, it is necessary to bleed the shock absorbers.
2. Clamp the shock absorbers vertically in a vice.



***The wide side of the shock absorber, is the top side.***

3. Press the top of the shock absorbers slowly down and then slowly pull the shock absorbers up.
4. At the end you may hear a slurping sound, the sound indicates that there's air in the shock absorbers.
5. Repeat this step until you can't hear the sound any more.



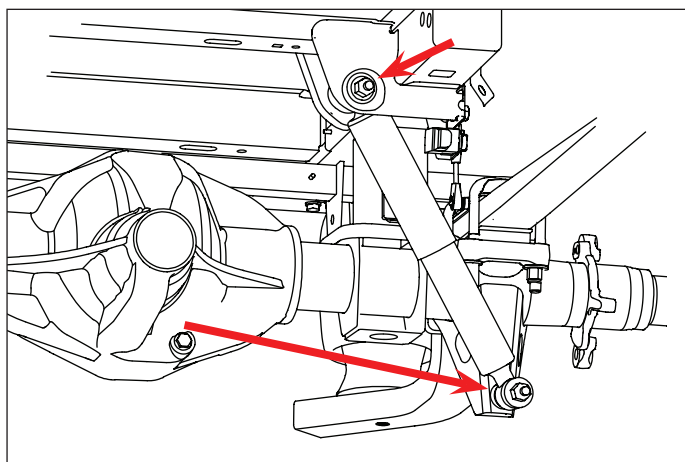
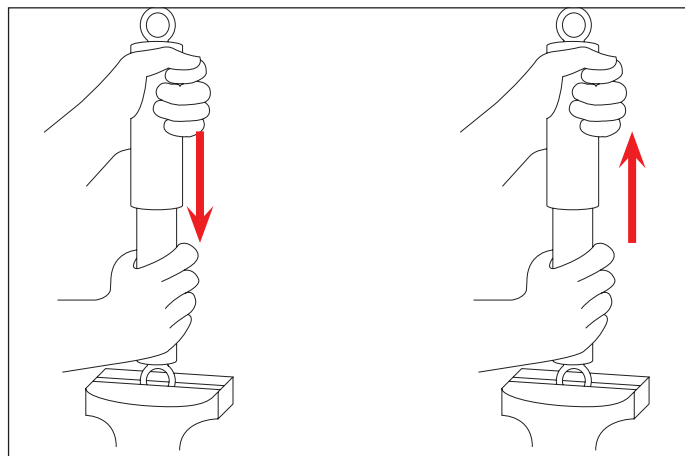
***Always hold the shock absorber with the top pointing up to prevent air re-entering the shock absorber.***

6. Keep the shock absorber upright.
7. Mount the new shock absorbers.



**180 Nm**

***Original fasteners***



#### 4.9 Compressor box

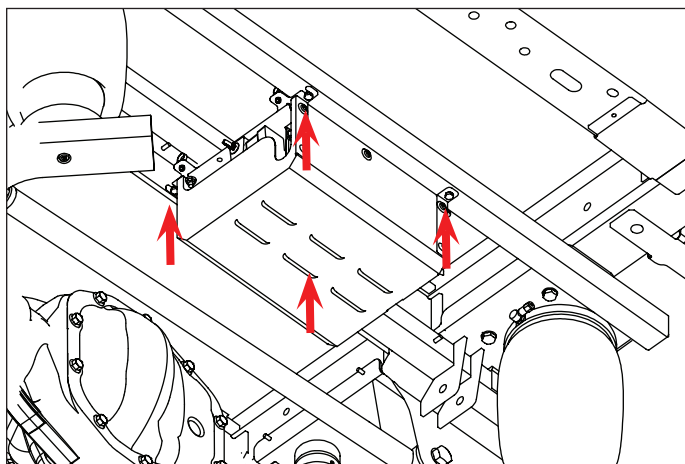
1. Mount the compressor box to the upper crossbeam.



**8 Nm**

***4 x Bolt M6x20***

***4 x sheet metal washer M6***



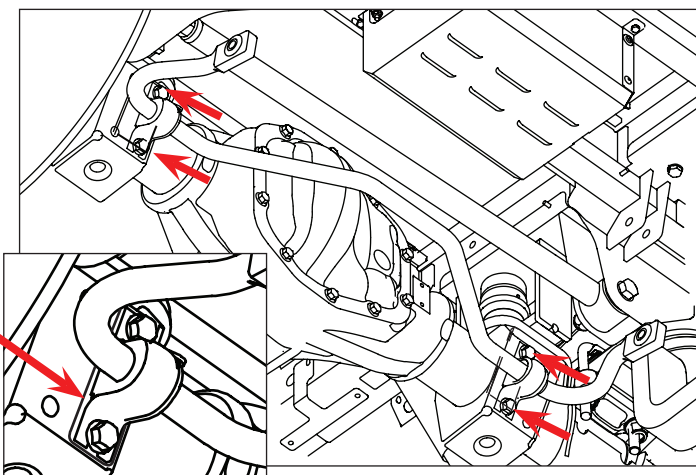
#### 4.10 Stabiliser

1. Mount the stabiliser. Use the new stabiliser rubbers and stabiliser brackets with the stabiliser brackets backplate brackets.



**62 Nm**

***Original fasteners***



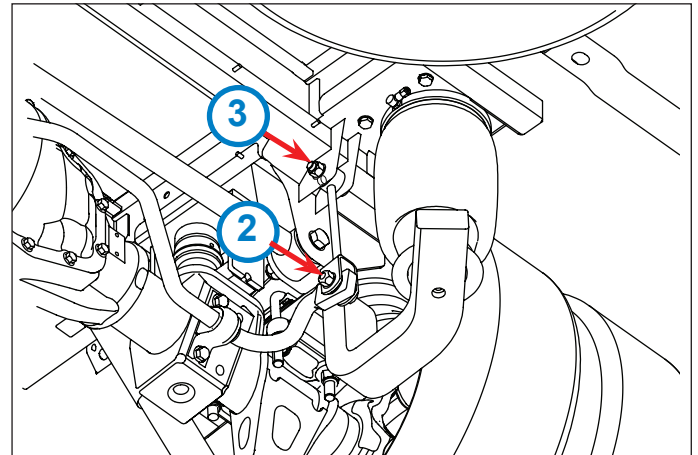


2. Mount the stabiliser to the original torque arms.

	<b>1 x Original fasteners</b>
<b>30 Nm</b>	

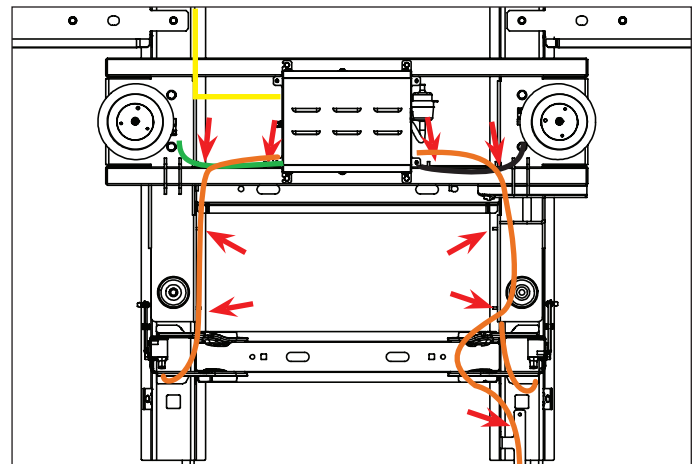
3. Mount the torque arm on the stabiliser brackets.

	<b>1 x Original fasteners</b>
<b>30 Nm</b>	



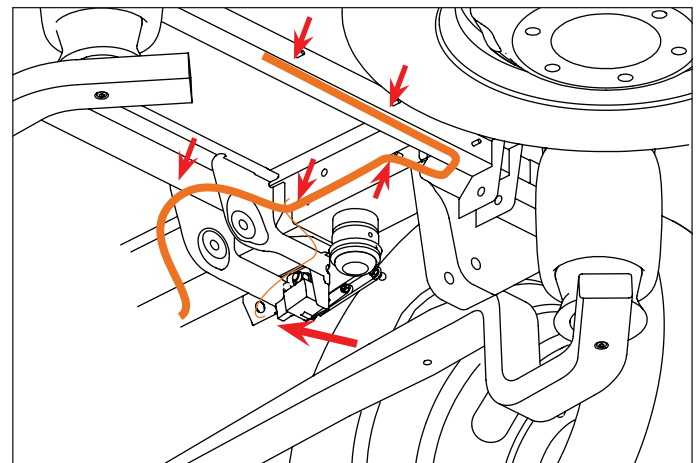
#### 4.11 Wiring harness

1. Mount the tie-wraps on the threaded ends on the upper cross beam.
2. Mount the **black** air tube on the right air-spring.
3. Mount the **green** air tube on the left air-spring.




**Connecting electrical cables or air-tubes to brake lines is strictly prohibited!**

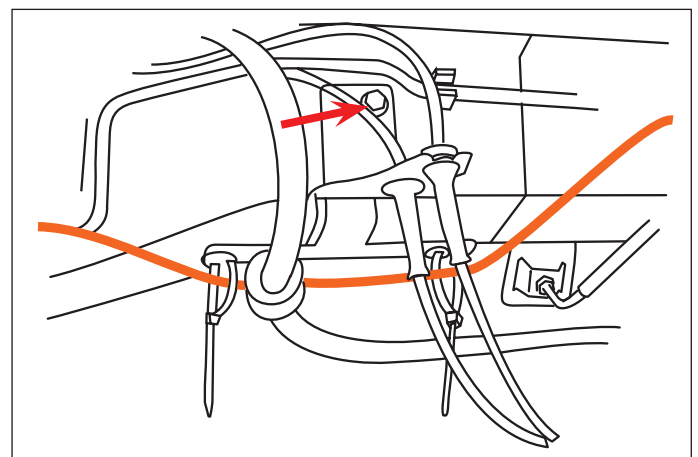
4. Lead the air tubes to the compressor box.
5. Secure the tubes with tie-wraps.
6. Connect the air-tubes to the compressor box.
7. Connect the height sensor cables to the height sensors.
8. Lead the wiring harness as shown in the picture.
9. Fit the **yellow** air tube to the air tank.
10. Mount the wiring harness with tie-wraps.



11. Remove the handbrake cable bracket.
12. Mount the wiring harness support to the chassis.

	<b>1 x Original bolt</b>
<b>20 Nm</b>	

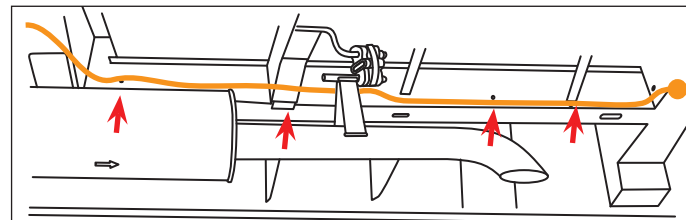
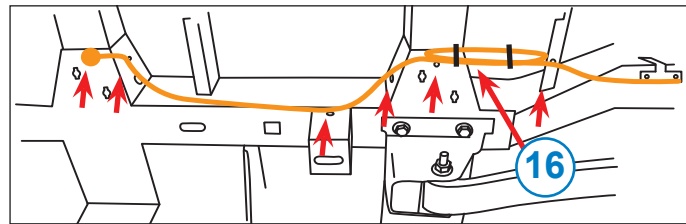
13. Mount the wiring harness with tie-wraps.



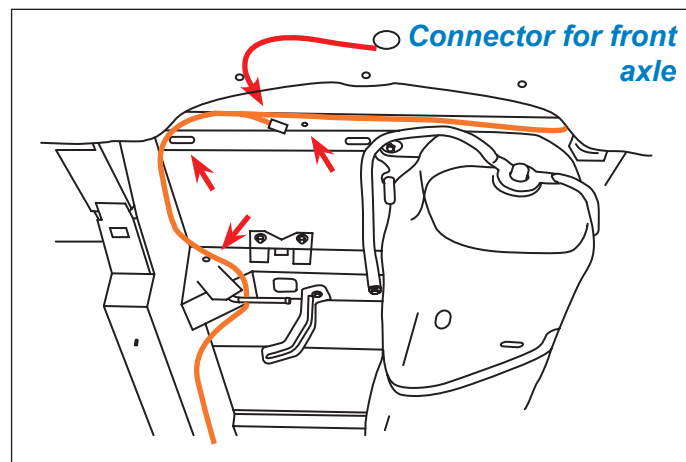
14. Mount tie-wraps to the chassis at the specified places.
15. Lead the wiring harness as shown in the picture.
16. Don't fasten the tie-wraps until the wiring harness is fully connected. Any remaining cable is secured at the specified location.



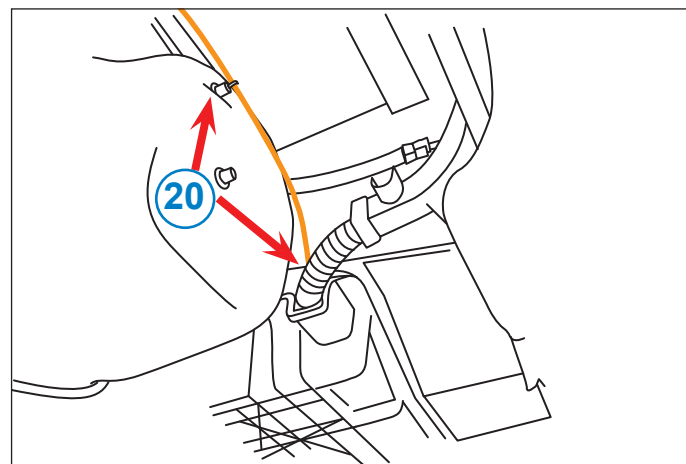
***Make sure that the tubes aren't near hot or moving parts. Use sufficient tie-wraps to secure the lines.***



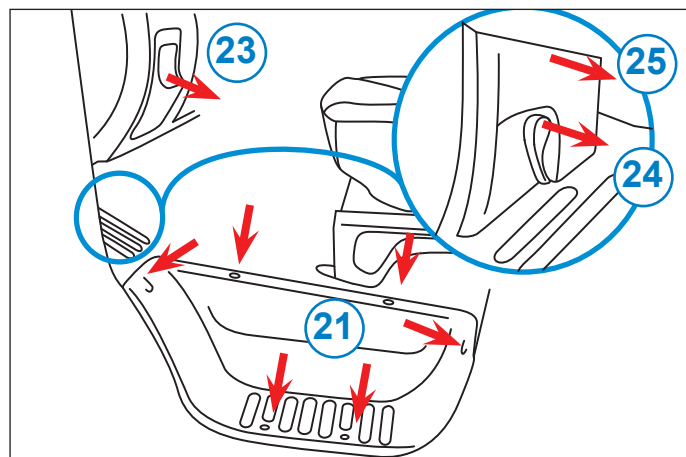
17. Mount tie-wraps to the chassis at the specified places.
18. Lead the wiring harness as shown in the picture.



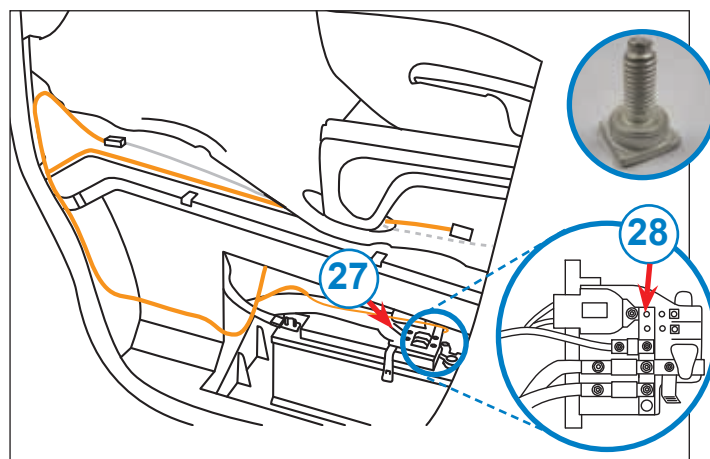
19. In front of the fuel tank there is a hole. Lead the VB-wiring harness inside, along with the vehicle's wiring harness.
20. Mount the wiring harness with tie-wraps.



21. Remove the screws.
22. Remove the entry of the cabin.
23. Remove the tray.
24. Remove the inside bonnet release. (click)
25. Remove the panel. (click)



26. Disconnect the battery terminals.
27. Remove the fuse block. (See inlay picture)
28. Mount the spec bolts in the fuse block, in one of the rear fuse positions <sup>1</sup>.
29. Connect the red and yellow cable to the stud bolt (+) <sup>1</sup>.
30. Mount the **50A** fuse between the red/yellow wire and the battery <sup>1</sup>.



31. Mount the wiring harness with tie-wraps.
32. Lead the cable for the remote control and handbrake signal to the drivers seat according to the image.



33. Remove the five bolts.
34. Remove the dashboard cover of the central console.

35. Route the yellow/brown earth wire to the central console.



36. Route the yellow/brown earth wire to the earth point of the central console.



37. Connect the yellow/brown wire to the earth point.
38. Mount the dashboard cover of the central console.



39. Connect the red wires in a fuse block (**F1**).
40. Connect the yellow wires in the other fuse block (**F2**).

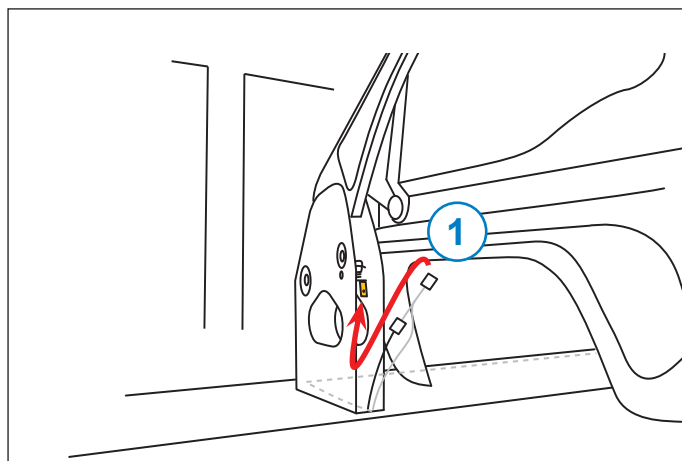


41. Mount the fuse blocks on the marked position with tie-wraps.
42. Do not fit the fuses yet.



#### 4.11.1 Handbrake signal

1. Lead the cable for the handbrake signal underneath the carpeting, around the back of the drivers seat, to the handbrake.
2. Remove the connector of the handbrake.
3. Connect the loosened connector to the white wire of the supply cable.
4. Connect the other plug of the supply cable to the connection of the handbrake.
5. Mount the VB-wiring harness to the original wiring harness.





#### 4.11.2 Ignition feed

1. Next to the relay box there is a connector.



*Renault/Nissan vehicles should be equipped with code: **CABADP***

*Opel/Vauxhall vehicles should be equipped with code: **KPD***

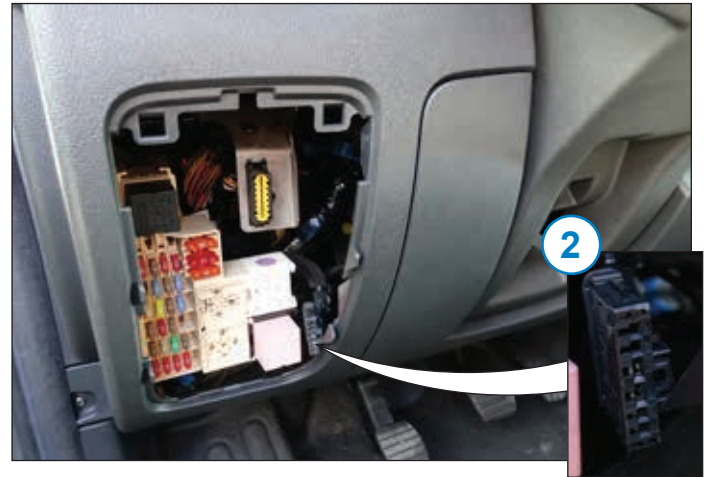
*If not, continue with chapter 8.*

2. Connect the wiring harness to the vehicle using the supply cable.



*If the vehicle is right-hand-driven, an additional extension wire is needed. This can be ordered by VB-Airsuspension, part number 1052200026.*

3. Connect the cable of the remote control to the VB-Wiring harness.
4. In consultation with the customer, identify a suitable location to install the remote control.
5. Mount the wiring harness with tie-wraps.
6. Refit the removed interior panels.
7. Mount the wiring harness under the vehicle. Secure any remaining cable according to section **4.11**, step **15**.
8. Mount the exhaust heat screen.



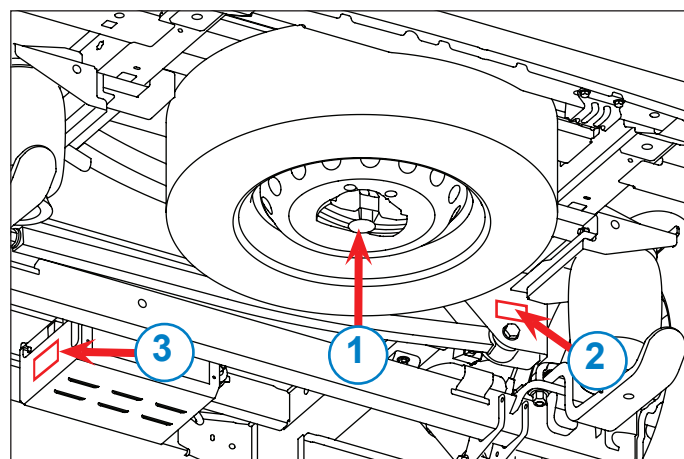
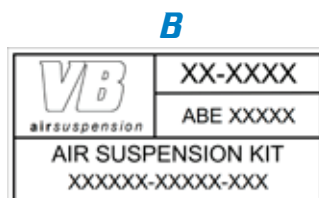
*Make sure that no underlying parts can be damaged during installation.*



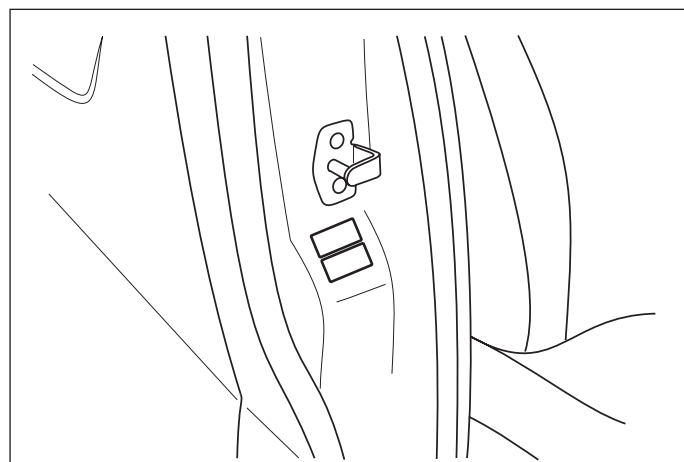
*Ensure that the remote control is never in the way of the airbags.*

#### 4.12 Warranty stickers

1. Mount the spare wheel.
2. Affix sticker **B** on the upper cross beam.
3. Affix sticker **A** on the compressor box.
4. Apply the protective film over the stickers.



5. Place the warranty stickers **A+B** in the B-pillar on the passenger side.
6. Apply the protective film over the stickers.
7. Place the sticker with fuses information on the tray where the fuses are mounted.
8. Note the installation of the air-suspension kit in the maintenance booklet.



**When kit 105 19 24 2XX for the rear axle is ordered, continue with chapter 6 Calibration.**

**When kit 105 19 24 4XX for the front and rear axle is ordered, continue with chapter 5.**

## 5. Mounting the front axle

### 5.1 Preparations

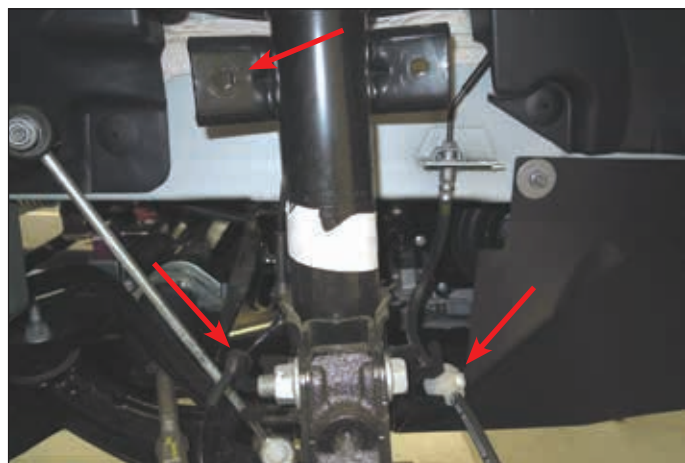
1. Support the vehicle properly.
2. Remove the wheels.
3. Loosen the suspension strut at the top by unscrewing the flange nut.





***Nuts will NOT be re-used.***

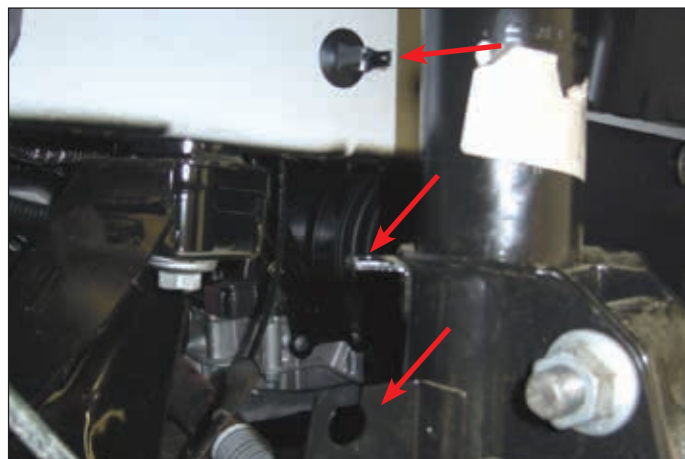
4. Remove the reaction arm (of the anti-roll bar). Loosen the brake line and ABS sensor cable from the suspension strut.





***Reaction arm and nuts will NOT be re-used.***

5. Loosen the ABS sensor cable at the three indicated points.





6. Support the steering knuckle or the brake disc and disassemble the suspension strut.



***Bolts and nuts will NOT be re-used.***

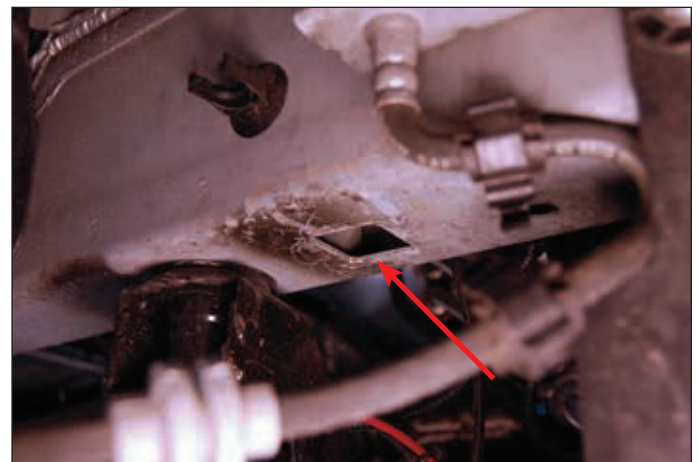


***Avoid tension in the brake-lines.***



## 5.2 Heightsensors

1. Clear the hole in the chassis



2. Assemble the heightsensor bracket clamp so that it fits in the hole in the chassis. Pay attention to the colors of the brackets, Red is for right, blue is for left.



3. Press the heightsensor against the chassis and tighten the nut. The bracket is now clamped to the chassis.



**8 Nm**

**2 x Flange nut M6**

4. Mount the heightsensors to the heightsensor brackets.



**The connector of the heightsensor should be pointing to the inner side of the chassis.**



**5 Nm**

**4 x Bolt M5x10 8.8**  
**4 x Washer M5**



5. Mount the ball joint to the ball joint bracket. Pay attention to the colors of the brackets, Red is for right, blue is for left.



**8 Nm**

**2 x Balljoint M6**  
**2 x Washer M6**  
**2 x Lock nut M6**



6. Mount the ball joint bracket to the suspension arm, it fits only in one way.



**8 Nm**

**2 x Bolt M6x40 8.8**  
**2 x Washer M6**  
**2 x Lock nut M6**



7. Mount the nut together with the fastening strip on the bottom side.



**The slot in the fastening strip at the bottom should be falling over the strip of the ball joint bracket, see insert.**





### 5.3 Air spring with shock absorber

1. Mount the air spring with shock absorber, the air coupler have to be placed at the front side of the shock absorber.



**Avoid tension in the brake lines.**

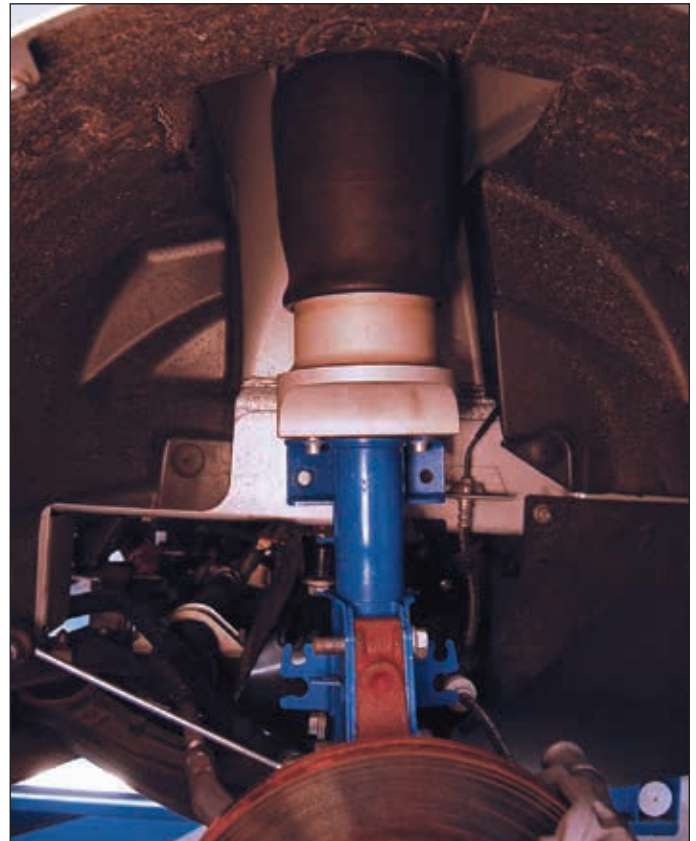


**Position the shockabsorber by hanging it in the upper hole and mount the nut and the mounting plate, tighten the nut a few turns.**



**2x flange lock nut M14x1.5**

**- Nm**



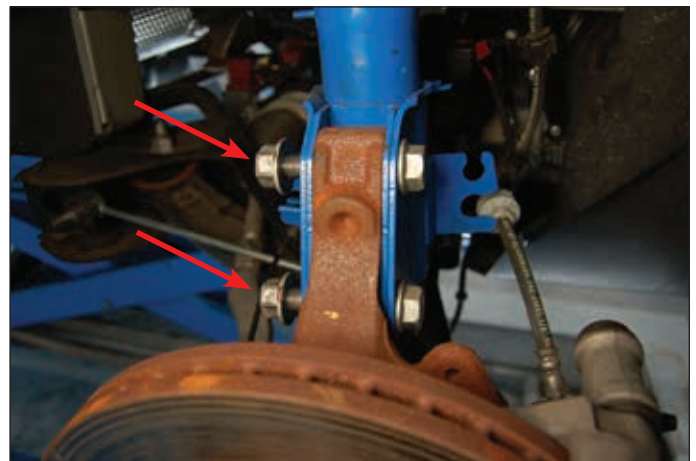
2. Mount the shock absorber to the steering knuckle.



**180 Nm**

**4 x flange bolt M14x70x1.5**

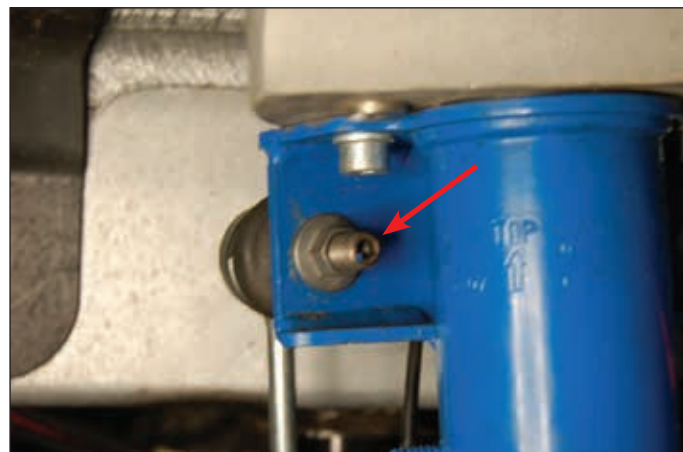
**4 x flange lock nut M14x1.5**



3. Check the length of the heightsensor rods, **L = 180 mm** measured from heart to heart.
4. Mount the heightsensor rods to the heightsensors and ball joints. Lock the Heightsensor rods.

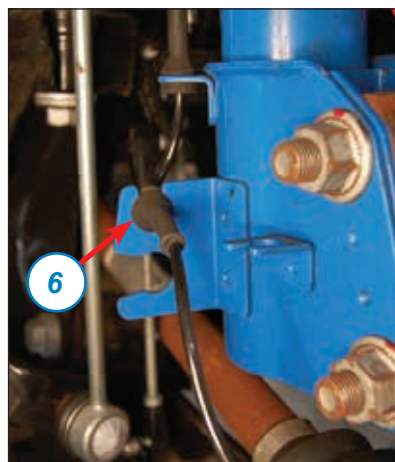



5. Mount the new reaction arm to the shock absorber and stabiliser bar.



	<b>4 x Original flange nut</b>
<b>62 Nm</b>	

6. Mount the ABS cables and brake hoses at its original mountings.
7. Finger-tight the nut on the top of the shock absorber. **\*\* The nut has to be secured when the vehicle stands on the wheels.**




	<b>2 x flange lock nut** M14x1,5</b>
<b>62 Nm</b>	

#### 5.4 Air-tubes


1. Lay the air-tubes along the right side of the vehicle to the front.



	<b>Make sure that the air tubes are clean and undamaged. Cut the air tube straight with an air pipe cutter, of the special tools.</b>
---	---

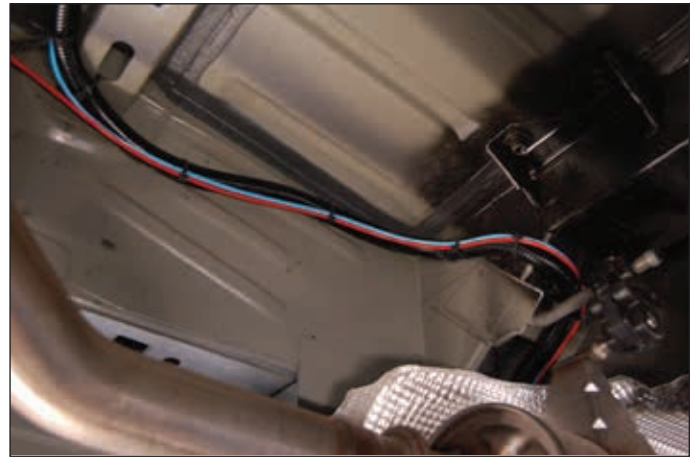
2. Place the blue and red air-tubes along the VB-wiring harness to the front of the car until near the fuel tank.



	<b>Make sure you use enough cable ties to secure the air-tubes.</b>
---	---



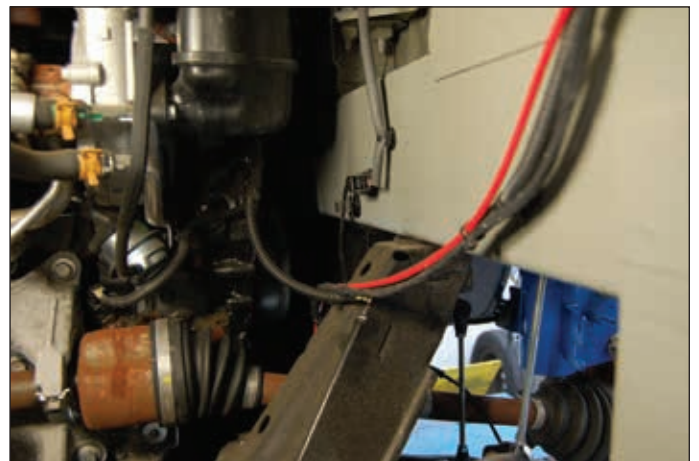
***Make sure that the air tubes aren't near hot or moving parts.***



3. Lay the red air-tube to the right air spring.



***Make sure that the air tubes aren't near hot or moving parts.***



4. Lay the blue air-tube to the left air spring.



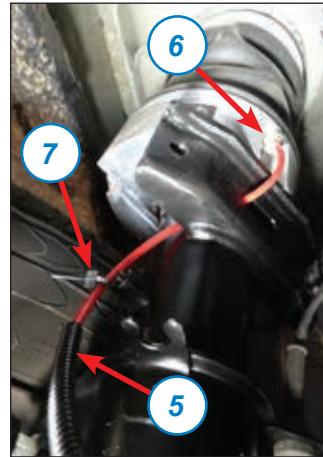


5. Slide the conduit over the air-tubes as shown in the picture.
6. Connect the air-tubes to the air springs.



**Slide the air-tube at least 80 mm in the air connection.**

7. Mount the air-tube to the shock absorber with a cable tie.



8. Mount the air-tube with the clips to the brake hose.
9. Mount the air-tube to the heightsensorbracket with a cable tie with Fir Tree, with Disc Ø6.5.

### 5.5 Wiring harness

1. Connect the wiring harness with the wiring harness from the rear axle. this one is located in front of the fuel tank.
2. Place the connectors for the heightsensors along the air-tubes to the heightsensors left and right.



**Pay attention to the colors, Red is for right, blue is for left.**



**Use sufficient tie-wraps to secure the cables.**



3. Connect the connectors to the heightsensors.
4. Mount the wheels<sup>1</sup>.



**<sup>1</sup> Vehicle manufacturer guidelines.**

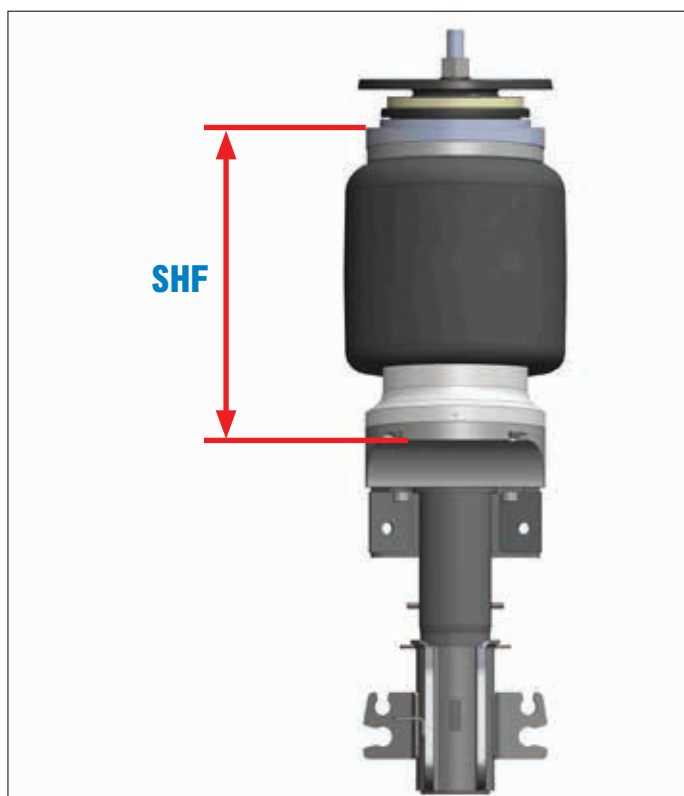
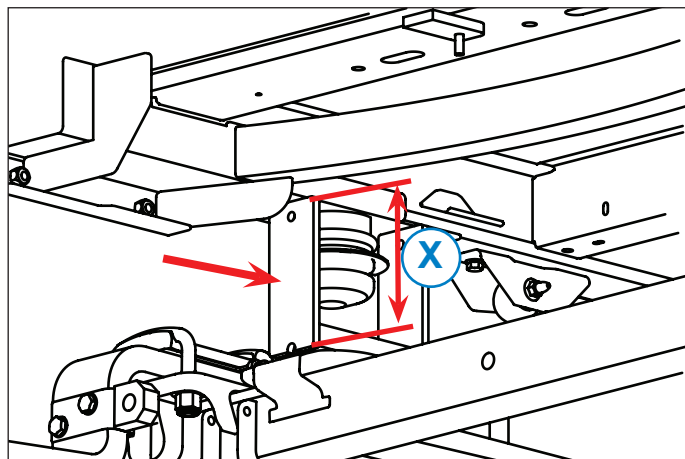




## 6. Calibration



*Go to section 2 for details of the correct calibration supports for this kit.*



- Place the fuses in the fuse blocks.  
(F1 = 40 A + F2 = 7.5A).
- Program the VB-ASCU via the SMT according to manual 733105000001 in the SMT.
- Calibrate the vehicle via the SMT, or via the steps below:



		<b>LCV</b> <b>2C / 4C</b>
		<b>Camper</b> <b>2C</b>
		<b>Camper</b> <b>3C / 4C</b>

- Turn the ignition on.
- Pull the handbrake slightly.
- Ensure that the vehicle is resting on the wheels on a flat surface.
- Briefly press the -button once (LED lights up). Enter the following code within 10 seconds:

**1** – **3** – **4** – **2**

The LEDs on the remote control will go out.

- Press the -button within 3 seconds and hold down the button until a long tone is heard.
- Enter the following code within 20 seconds:

**2** – **4** – **3** – **1**

Calibration mode has been activated.

- The -LED and the -LED will start to flash.
- Press button **2** or to raise the vehicle.
- Place the calibration supports under the vehicle.
- Hold down button **1** or to allow all the air to vent from the air-springs.  
The air-springs are empty once the hissing sound can no longer be heard.  
The calibration height has been reached.
- Hold down the -button until the long tone is heard.  
The ride height has been stored.



**2C calibration: Continue at step 14.**  
**4C calibration: Continue at step 12.**

- Briefly press the -button once (LED lights up).  
The system restarts.
- Repeat steps 8 through 11
- Briefly press the -button once.  
calibration mode is closed.  
The system restarts.
- Briefly press the -button once.  
-mode is closed.
- Press button **2** or to raise the vehicle.
- Remove the calibration supports from under the vehicle.
- Set the vehicle to the ride-height.
- Turn the ignition off.
- Tighten all nuts and bolts indicated in the manual with **\*\***.

- Have the headlamp adjustment checked by a dealer.
- Check the vehicle using the checklist in the manual.

## 7. Checklist

### Final checks

- 1.1 ☐ Safety rules and fitting instructions read and followed.
- 1.2 ☐ Ride height correctly calibrated.
- 1.3 ☐ Front axle/rear axle aligned.
- 1.4 ☐ Height sensors correctly fitted.
- 1.5 ☐ Shock absorbers vented.
- 1.6 ☐ Bolted joints tightened to the correct torque and marked with security check paint marker.
- 1.7 ☐ Air tubes, wires and connectors properly secured.
- 1.8 ☐ All parts that were removed have been refitted and checked to ensure they are working properly.
- 1.9 ☐ System checked for air tightness.
- 1.10 ☐ Clearance around air springs checked.
- 1.11 ☐ Identification stickers, plus protective film, affixed to the vehicle.
- 1.12 ☐ Headlamp adjustment checked.
- 1.13 ☐ If required, have ADAS (Advanced Driver Assistance Systems) recalibrated.
- 1.14 ☐ VB-ID card inside cover of user manual.
- 1.15 Documentation present in vehicle:
  - ☐ - User manual
  - ☐ - TÜV/ABE documentation
  - ☐ - Original vehicle documentation
- 1.16 ☐ Battery voltage ( <12.4 volt = charge).
- 1.17 ☐ Tyre pressures correct.

### System functions

- 2.1 ☐ \* Raise manually.
- 2.2 ☐ \* Lower automatically.
- 2.3 ☐ \* Lower manually.
- 2.4 ☐ \* Raise automatically.
- 2.5 ☐ Test drive carried out.

☐ **SYSTEM OK**

\* Not for VB-NivoAir

Completed as a true and accurate record:

Date:   -   -

VIN:

Dealer: \_\_\_\_\_ VB-ID-no.:       -       -

Kit numbers(s):

Fitting instructions no.:

Version:

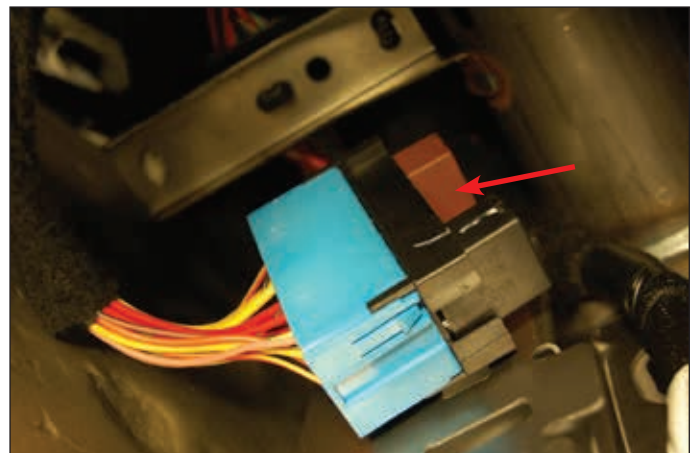
*This checklist should be retained by the dealer and must be available to VB-Airsuspension for inspection on request.*

## 8. CABADP/KPD option connector

*In the vehicle are two possible situations when the option CABADP is not available. It's possible that there's a connector available and it's possible that the connector is not available.*

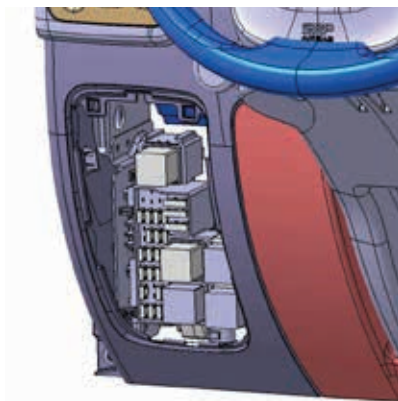
### 8.1 CABADP/KPD option connector available

1. When option CABADP not available, please order 1 relay with VB partnr: 0030300005.
2. Mount the relay on the right side of the vehicle.
3. Insert the relay into the relay-holder in the upper position.
4. Continue on page 19 with step 3.

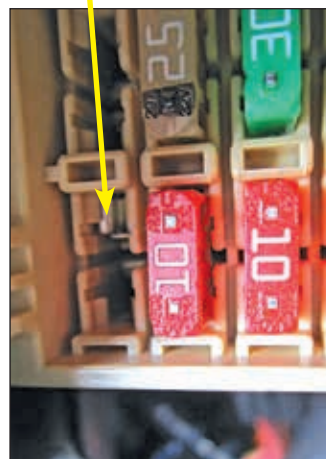
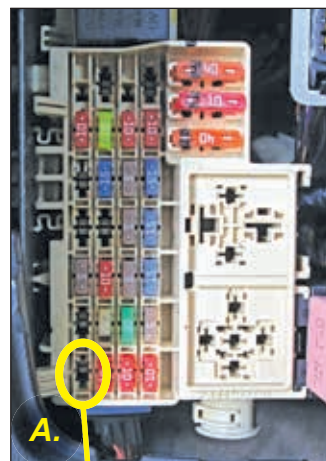


### 8.2 CABADP/KPD option Cconnector not available

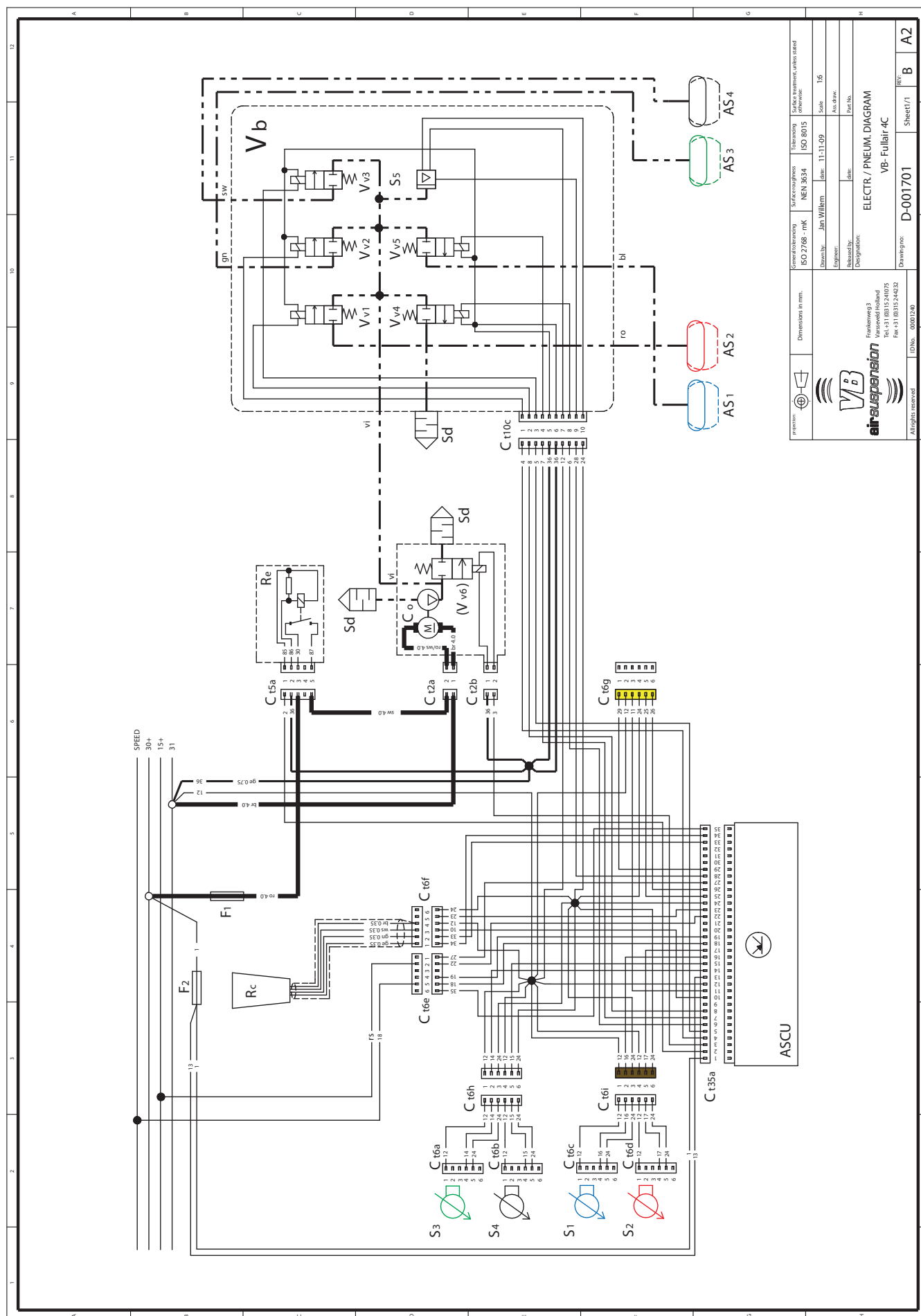
1. De-mount the original fusebox



2. Connect the pink cable of the VB-wiring harness to the yellow cable of the pointed position.  
**A. / B.**
3. Continue on page 19 with step 3.



## 9. Wiring diagram



Name	Description
ASCU	VB-ASCU (control unit)
AS1	Air spring front left
AS2	Air spring front right
AS3	Air spring rear left
AS4	Air spring rear right
Co	Compressor
Ct2a	Connector, 2-pole, compressor
Ct2b	Connector, 2-pole, valve on compressor
Ct5a	Connector, 5-pole, relay Re
Ct6a	Connector, 6-pole, height sensor S1
Ct6b	Connector, 6-pole, height sensor S2
Ct6c	Connector, 6-pole, height sensor S3
Ct6d	Connector, 6-pole, height sensor S4
Ct6e	Connector, 6-pole, VB-supplycable
Ct6f	Connector, 6-pole, remote control
Ct6g	Connector, 6-pole, option connector (Yellow)
Ct6h	Connector, 6-pole, height sensor rear axle (White)
Ct6i	Connector, 6-pole, height sensor front axle (Brown)
Ct10a	Connector, 10-pole, valve block connection
Ct35a	Connector, 35-pole, VB-ASCU control unit
F1	Fuse compressor, 40A
F2	Fuse control unit, 7,5A
Rc	Remote control
Re	Compressor relay
S1	Height sensor front left
S2	Height sensor front right
S3	Height sensor rear left
S4	Height sensor rear right
S5	Pressure sensor on valve block
Sd	Air silencer
Vb	Valve block
Vv1	Valve for air spring, right front on valve block
Vv2	Valve for air spring, left rear on valve block
Vv3	Valve for air spring, right rear on valve block
Vv4	Dump valve, to release air on valve block
Vv5	Valve for air spring, left front on valve block
Vv6	Release valve on compressor box
<b>Colour codes (not mentioned is yellow with numbers)</b>	
bl	Blue
br	Brown
ge	Yellow
gn	Green
ro	Red
ro/ws	Red/White
rs	Pink
sw	Black
vi	Violet
ws	White
	0,50 mm²
	0.75 mm²
	4,00 mm²
	Air tube





VB-Airsuspension is producing, as one of the few European manufacturers, a very broad range of different (air-) suspension systems. From reinforced coil springs, semi-air suspension systems, up to complete full air-suspension systems, we provide solutions for customers with different vehicle types, like ambulances, minibuses, car transporters, motorhomes, etc. Now you can see why more and more commercial vehicle body manufacturers specify VB-Airsuspension on their vehicles.



Dealer:



**VB**

*airsuspension*



[www.vbairsuspension.com](http://www.vbairsuspension.com)

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