

Mercedes Sprinter 5,0t with VB-FullAir-2C for the rear axle



Fitting instructions

For Kit nr: 105022120X



What has changed ?

New revision number:	23
Release date	02-02-2017
Changed compared to	V2.2
Page:	What is changed:
11	Step 1: torque updated
13	Step 2: torque updated
14	Step 7: torque updated
16	Step 7 + 9: torque updated
All	New notation for revision number (00 .. 01 .. 02 etc.)



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Safety regulations



Warning symbol

When the warning symbol is displayed, there is information given which is important for a correct fitting of the air-suspension kit, the safety and/or health of the involved people. When this information is being ignored, it can cause serious injuries!

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.



General fitting regulations

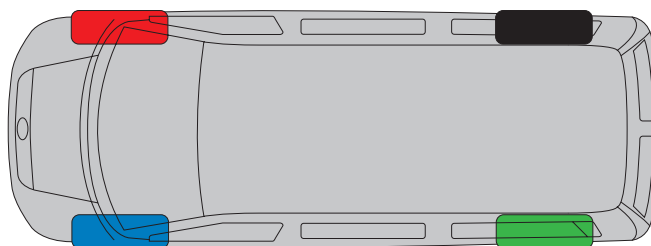
This manual has been carefully crafted to provide the best way to fit the air suspension mentioned on the cover of this manual. However, the manual is a random indication of the technical specifications at any given time.

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

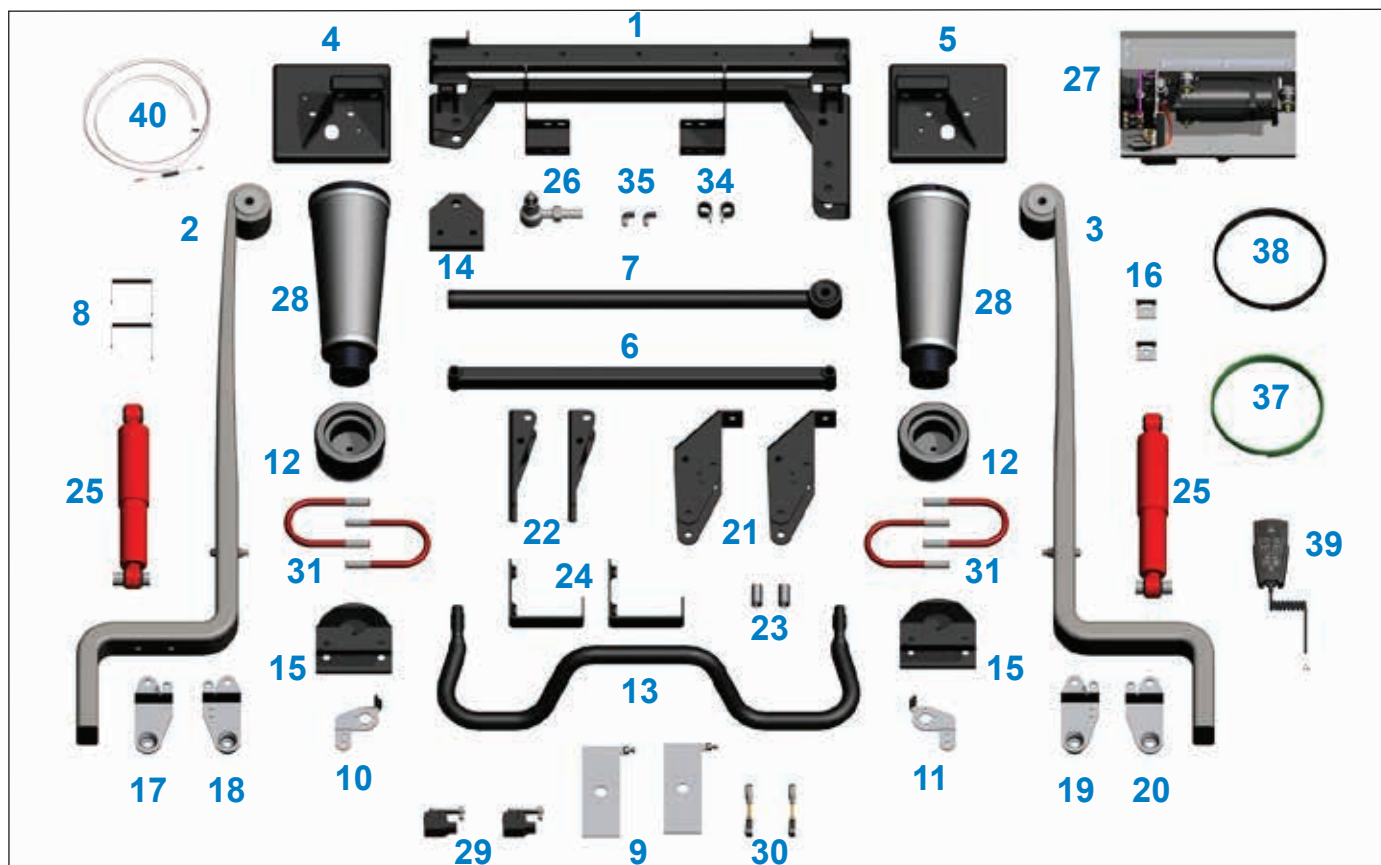
Fitting of the air suspension kit can only be done in a from VB-Airsuspension authorised workshop. The fitting can only be done by authorised mechanics. The mechanics must have proper experience in electric/electronics, pneumatics and regular vehicle technics.

- When necessary, use the work-shop manuals of the vehicle.
- 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 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 100mm 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.
- 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.

Colour	Description
	Left rear
	Right rear



Overview of the air-suspension kit



The Air-suspension kit consists of numerous different parts. To keep things clear, only the main parts have been included on the above picture. The more common parts, like for example the fitting materials, have been left out.

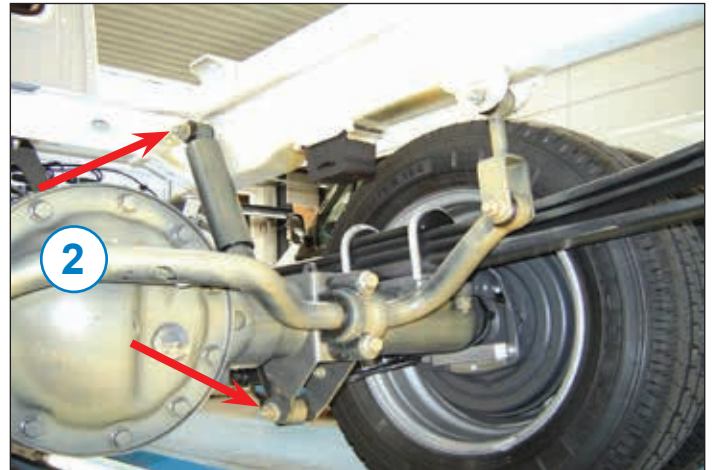
Number	Description
1	Upper cross beam
2	Main spring, left
3	Main spring, right
4	Spring plate, left
5	Spring plate, right
6	Torque rod
7	Panhard rod
8	Brake line bracket, main spring
9	Ball-joint bracket
10	Height sensor bracket, left
11	Height sensor bracket, right
12	Piston
13	Roll stabiliser
14	Panhard rod bracket
15	Spring plate, bottom
16	Spare wheel bracket
17	Stabiliser arm, left outside
18	Stabiliser arm, left inside
19	Stabiliser arm, right inside

Number	Description
20	Stabiliser arm, right outside
21	Shock absorber bracket, rear
22	Shock absorber bracket, front
23	Distance bush
24	Joint bracket
25	Shock absorber
26	Panhard rod ball-joint
27	Compressorbox
28	Air-spring
29	Height sensor
30	Height sensor arm
31	Leaf spring U-bolt
34	Tube clamp
35	Air-coupling
37	Air-tube left
38	Air-tube right
39	Remote control
40	Supply cable

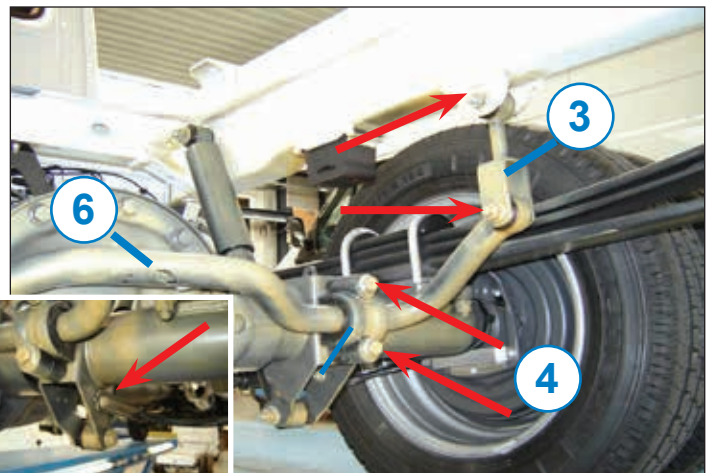
Please check the 'exploded view' in the annex for a more detailed view of the parts. Here you can also find the part numbers.

Mounting the Air-Suspension kit Preparations

1. Support the vehicle and the rear axle properly.
2. Remove the shock absorbers.

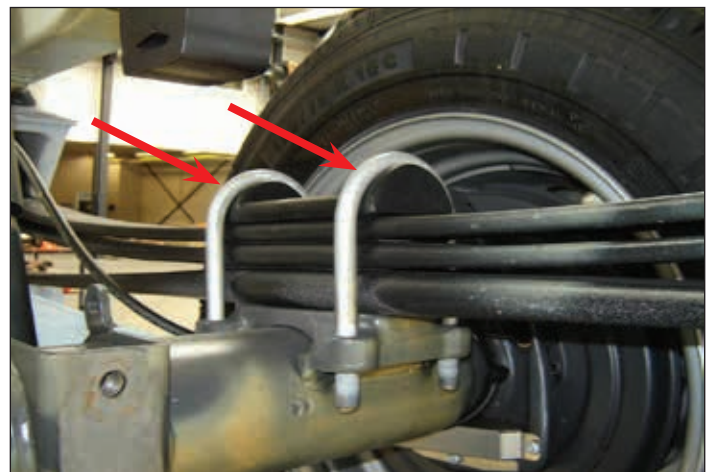


3. Remove the stabiliser arms.
4. Remove the stabiliser brackets.
5. Remove the stabiliser rubbers.
6. Remove the roll stabiliser.
7. Remove the hand-brake cable bracket.

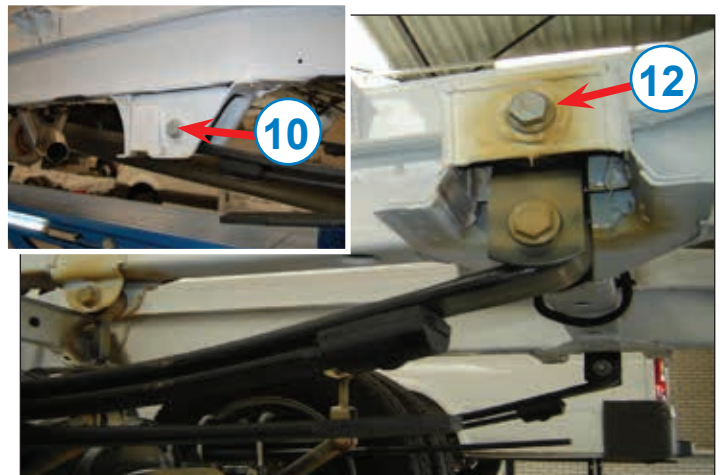


ATTENTION: When there are Xenon lights on the vehicle, don't remove the Xenon linkage.

8. Remove the leaf-spring U-bolts.
9. Remove the spring plate.



10. Remove the front spring bolt.
11. Bolts and nuts will be re-used.
12. Remove the back spring bolt.



ATTENTION: Let the rear axle fall, to make the assembly easier.



ATTENTION: Protect the surface with an anticorrosion substance. For example: protective coating or spray-wax.

Main springs



ATTENTION: The left and right main springs are different.

1. Place the main springs on the spring seats.
2. The main spring with the holes must be fitted on the left-hand side.
3. Mount the main spring in the front leaf-spring bracket.
4. Use the original bolts and nuts.
5. The centre bolt must fall in the hole of the spring seat.

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



6. Place the ball-joint bracket on the main spring.
7. The ball-joint of the ball-joint bracket must be pointed to the front and inside of the vehicle.



ATTENTION: The vehicle should be equipped with optioncode

Z45 or AL1

If not, please first follow chapter "Reinforcement plate on the rear axle" in this manual.

8. Place the spring plates on the ball-joint brackets.
9. Mount the whole with the leaf-spring U-bolts.
10. Use anti-seize compound on the screw thread.
11. Use the original nuts.

**** Don't secure the bolts.**

- 4x Leaf spring U-bolt
- 8x Nut



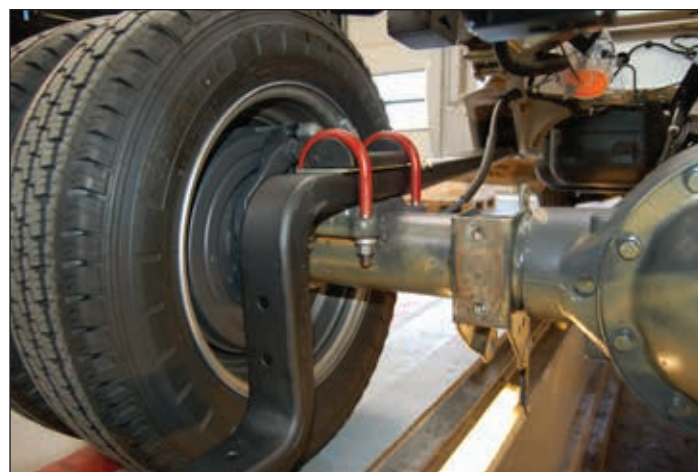
Upper cross beam

1. Mount the upper cross beam on the chassis.
2. The panhard rod bracket must come on the right-hand side of the vehicle.

- 2x M12 x 70 Bolt
- 4x M12 Washer
- 2x M12 Lock nut



ATTENTION: With a wheelbase of 3665mm, the spare wheel has to be moved. See instructions, 'moving spare wheel' in this manual.



3. Mount the spring plates on the upper cross beam.

4x M12 x 30 x 1,75 Bolt
4x M12 Washer



ATTENTION: The colour marker shows, which bracket is for the left or right. See 'fitting regulations'.

4. Mount a bolt on the right.
5. Insert the bolt from the backside.

1x M16 x 100 Bolt
2x M16 Washer
1x M16 Lock nut



Panhard rod

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

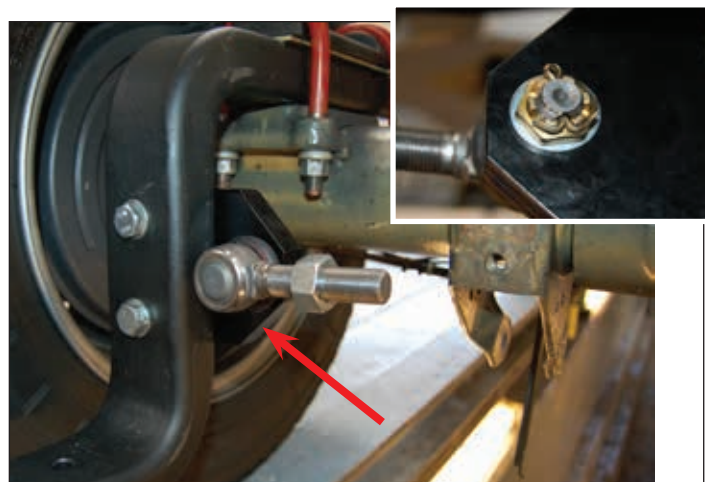
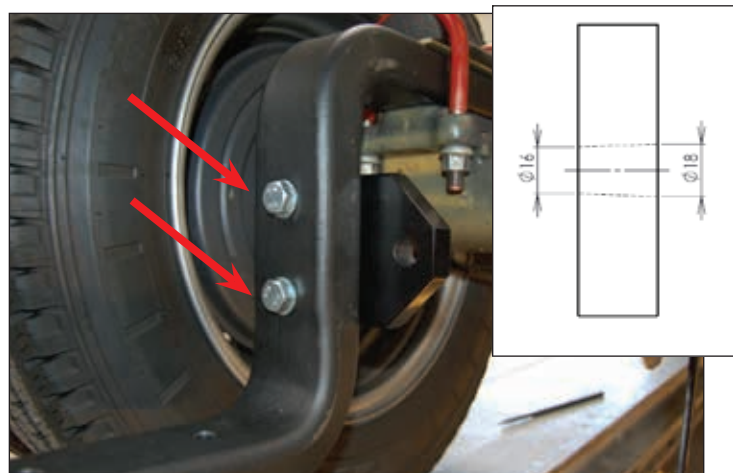
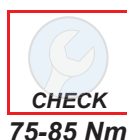
2x M12 x 80 Bolt
4x M12 Washer
2x M12 Lock nut



ATTENTION: The hole in the panhard rod bracket is conical. The large hole must pointing to the back.

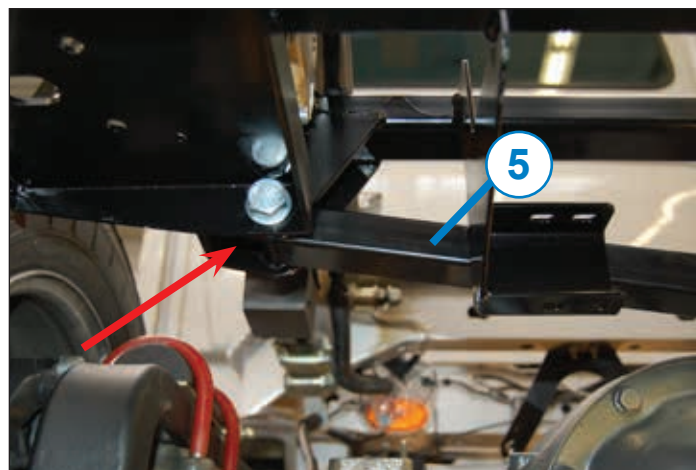
2. Mount the panhard rod ball-joint on the panhard rod bracket.
3. Mount the crown nut on the panhard rod balljoint.
4. Secure the castelled nut with a split pin.

1x M14 Washer
1x M14 Castelled nut
1x Split pin



5. Mount the torque rod to the left-hand side.
6. Mount a bolt on the left.
7. Insert the bolt from the backside.

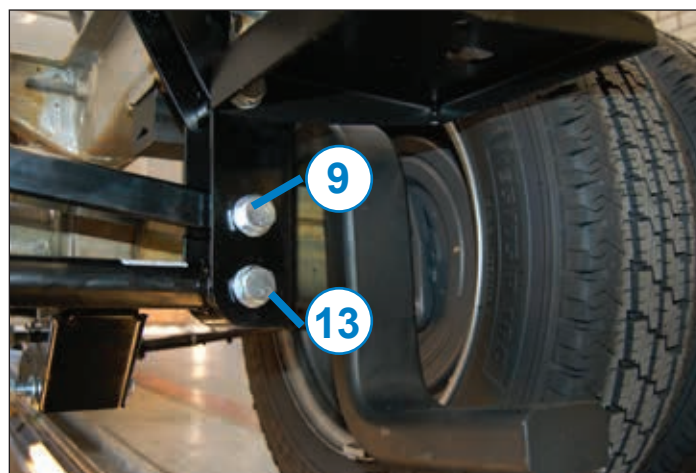
- 1x M16 x 100 Bolt
- 2x M16 Washer
- 1x M16 Lock nut



8. Mount the torque rod to the right-hand side.
9. Secure the torque rod bolt.
10. Use anti-seize compound on the screw thread.
11. Turn the panhard rod on the panhard rod ball-joint.
12. Mount the panhard rod on the panhard rod bracket.
13. Don't secure the panhard rod bolt yet.

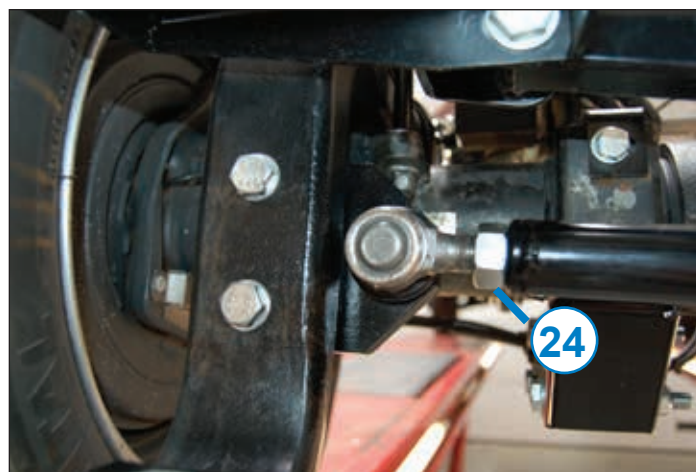
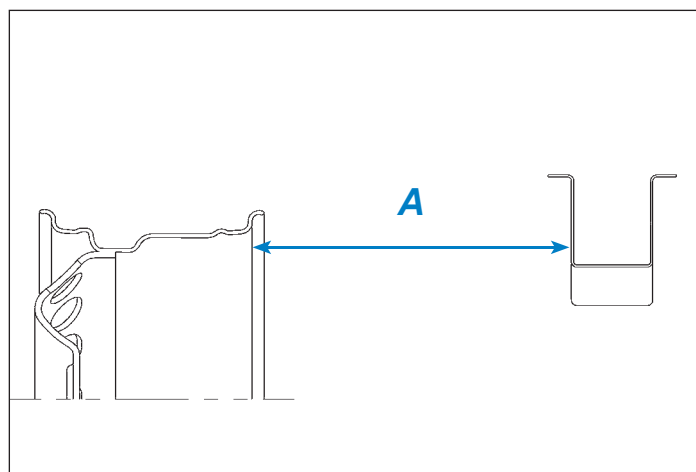
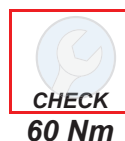
- 2x M16 x 90 Bolt
- 4x M16 Washer
- 2x M16 Lock nut

**** Don't secure the bolts.**



ATTENTION: The next step can only be performed, when the vehicle is in ride-height!

14. Put the vehicle at ride height.
15. Measure the distance (A) between the chassis and the rim edge on the left-hand side. (A-left)
16. Measure the distance (A) between the chassis and the rim edge on the right-hand side. (A-right).
17. If the distance between the left and right side is more than 2mm, untighten the lock nut.
18. Turn the panhard rod:
 19. Left: by $A\text{-left} > A\text{-right}$
 20. Right: by $A\text{-left} < A\text{-right}$
21. Mount the bolt.
22. Size difference $> 2\text{mm}$, Adjust!
23. Size difference $< 2\text{mm}$, Go further!
24. Secure the lock nut.

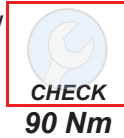


ATTENTION: By adjusting supplies: 1 turn equals 1,5 mm displacement.

Air-springs

1. Mount the spring plates to the main springs.

- 4x M12 x 75 Countersunk Allan Screw
- 4x M12 Washer
- 4x M12 Lock nut

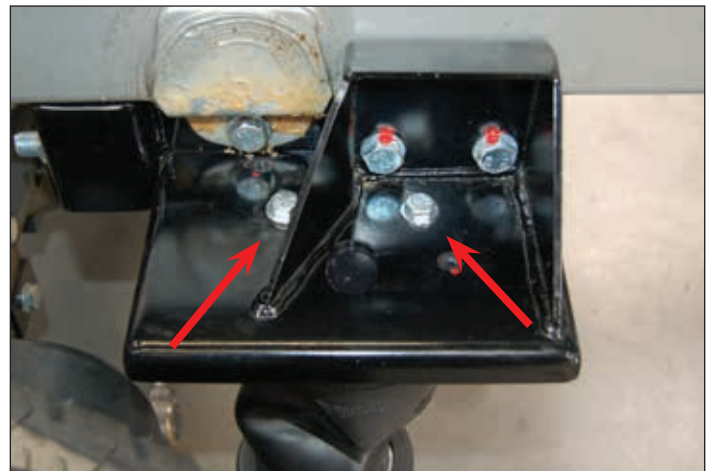


2. Mount the air couplings on the air springs.
3. Mount the air-springs on the upper cross beam.

- 2x Air-coupling

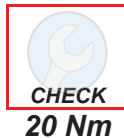


- 4x UNC 3/8" x 3/4" Bolt
- 2x M10 Washer



4. Pull the plug out from the underside of the air-springs.
5. Mount the pistons.
6. Mount the air springs on the spring plates.

- 2x UNC 3/8" x 1 1/2" Bolt



**** Don't secure the bolts.**



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



Shock absorber bracket

1. Insert in both original brackets a bush.
2. The displayed parts are the stabiliser bracket and the shock absorber bracket.
3. Bracket (1) must be mounted on the front of the rear axle.
4. Bracket (2) must be mounted on the back of the rear axle.
5. Mount the stabiliser bracket and the shock absorber bracket on the rear axle.
6. Insert the bolt in to the hole.

2x M12 x 30 x 1,50 Bolt
2x M12 Washer



ATTENTION: These bolts have a fine screw thread.

7. Mount the stabiliser bracket and the shock absorber bracket on each other.
8. Insert the bolts in to the holes.
9. Secure the bolts.
10. Mount the hand-brake cable bracket on the holder.
11. Use the original bolts and nuts.

4x M14 x 110 Bolt
8x M14 Washer
4x M14 Lock nut



2x M10 x 30 Bolt
2x M10 Flange nut

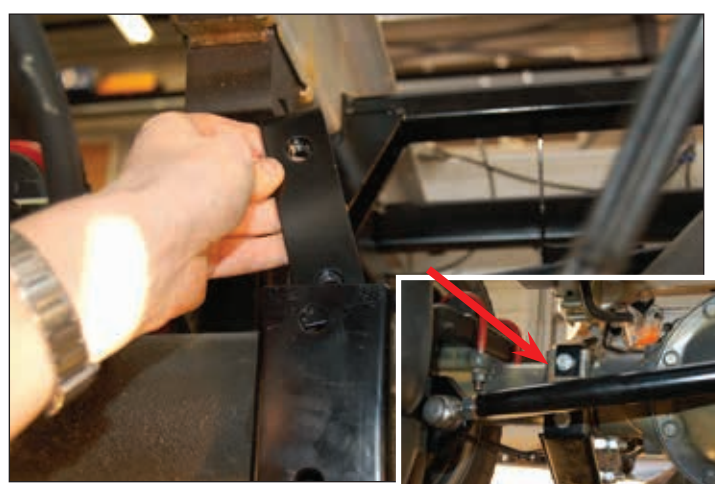
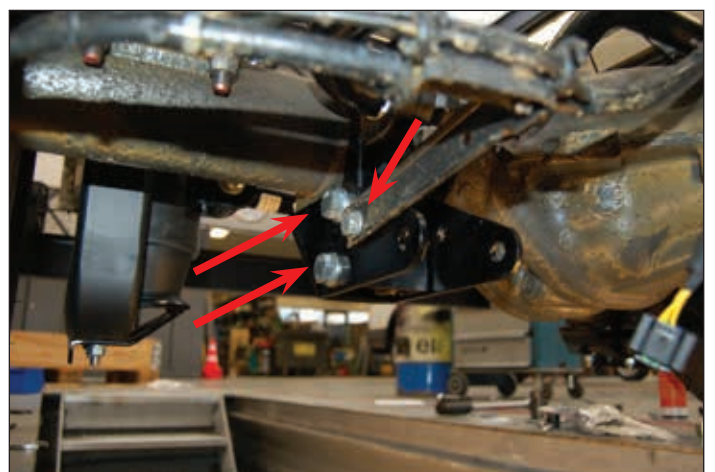
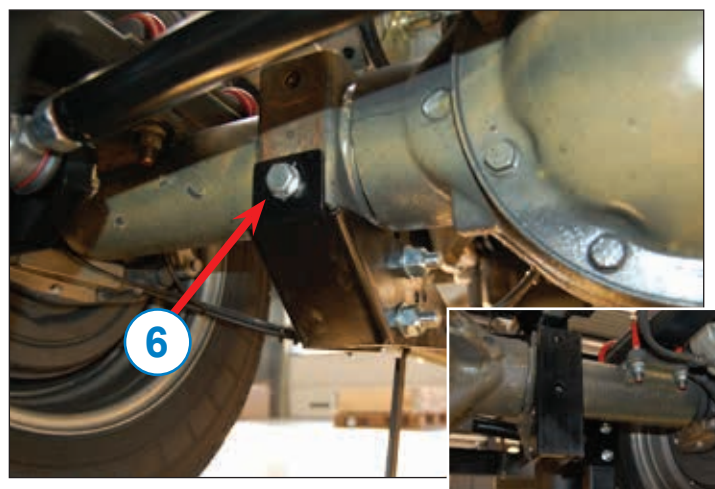
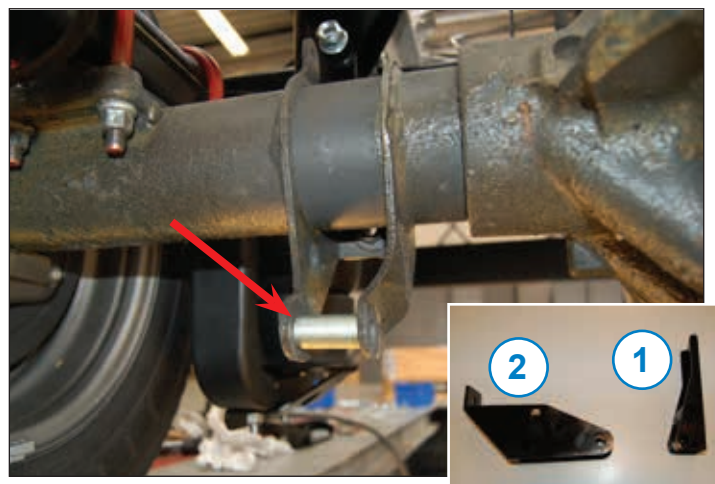


12. Mount both bracket with the connecting brackets on the uppertime, the long side slides in bracket.

2x M12 x 30 x 1,50 Bolt
2x M12 Washer



ATTENTION: These bolts have a fine screw thread.



Brake line bracket

1. Mount the hand-brake cable bracket.
2. 130 mm - measured from the front U-bolt.
3. Mount the brake lines with the tube clamp.

2x M5 x 80 Bolt
2x M5 x 16 Bolt
4x M5 Lock nut



Stabiliser



ATTENTION: The colour marker shows, which bracket is for the left or right. See 'fitting regulations'.

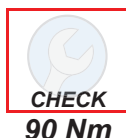
1. The brackets with the threaded ends must come on the outside.
 - (1) Left in
 - (2) Left out
 - (3) Right out
 - (4) Right in



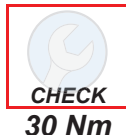
ATTENTION: If the vehicle is equipped with Xenon lamps, there will be an adjustment first. See instructions, 'Xenon adjustments' in this manual.

2. Mount the new stabiliser brackets on the original stabiliser arms, till 1 new composition.
**** Don't secure the bolts.**

2x M12 x 70 Bolt
4x M12 Washer
2x M12 Lock nut

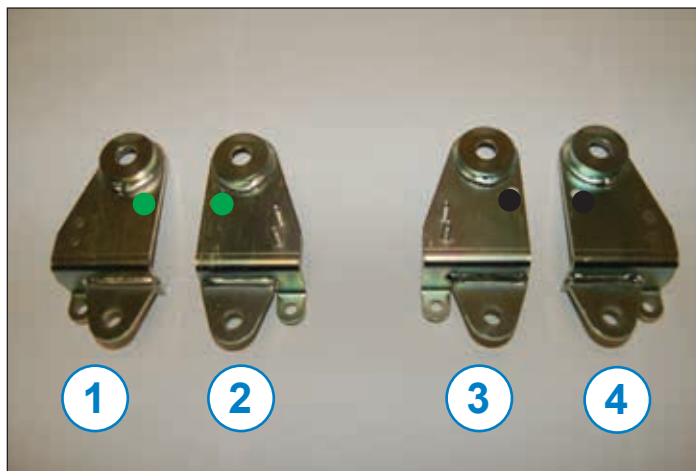


2x M8 x 80 Bolt
4x M8 Washer
2x M8 Lock nut



3. Mount the new composition on the chassis.
4. Use a thick washer on the inside.

2x M14 x 180 Bolt
2x M14 Washer
2x M14 Thick washer



5. Mount the stabiliser on the stabiliser arms.



ATTENTION: Fit the rounded edges of the washer on the rubber side. The sharp edge of the washer could damage the rubber.

6. Use 1 sheet-metal washer on the outside of the vehicle.
7. Use 1 sheet-metal washer on the inside of the vehicle.

**** Don't secure the bolts.**

- 2x M12 x 70 Bolt
4x M12 Washer
4x M12 Sheet-metal washer
2x M12 Lock nut



ATTENTION: Hold the stabiliser above the drive shaft.

8. Mount the stabiliser rubbers on the stabiliser.

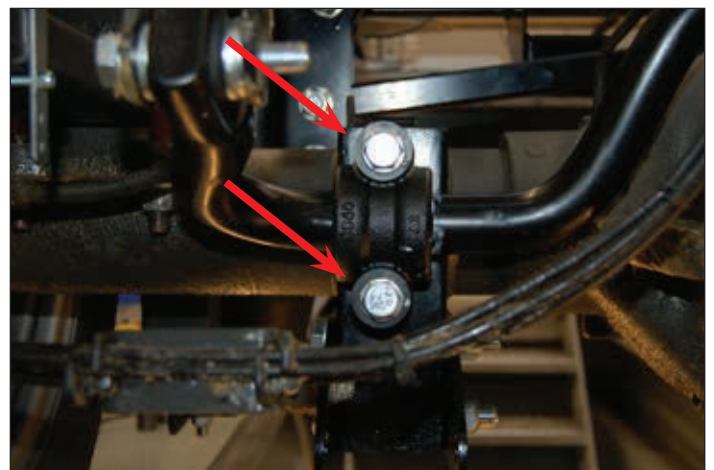
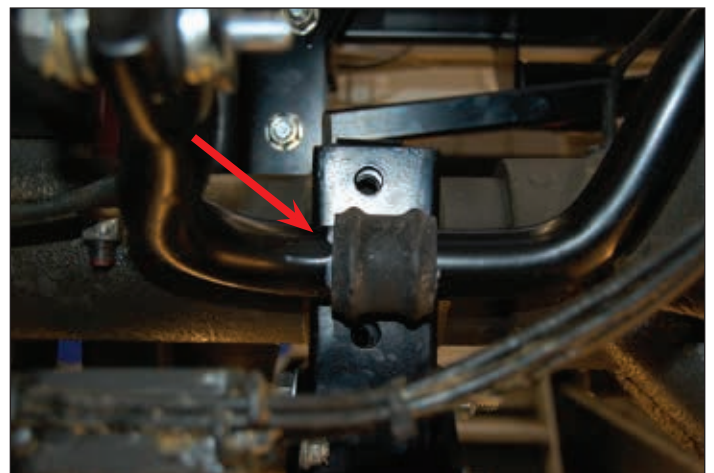
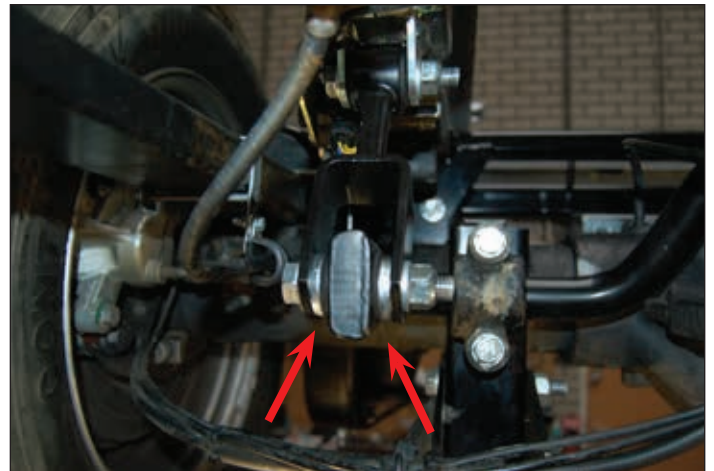


ATTENTION: The rubbers must have an internal diameter of 34mm. If not, please order VB-Airsuspension partnumber 1052350021.

9. Mount the stabiliser with the new stabiliser brackets on the rear axle.

**** Don't secure the bolts.**

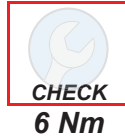
- 4x M12 x 80 Bolt
4x M12 Washer



Height sensors

1. Mount the height sensors on the height sensor brackets. Pay attention on the direction of the connector.

4x M5 x 16 Bolt
4x M5 Washer

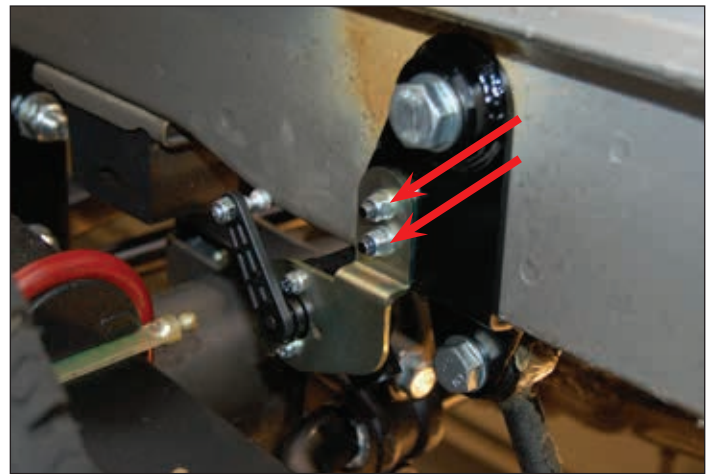


ATTENTION: The colour marker shows, which bracket is for the left or right. See 'fitting regulations'.



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

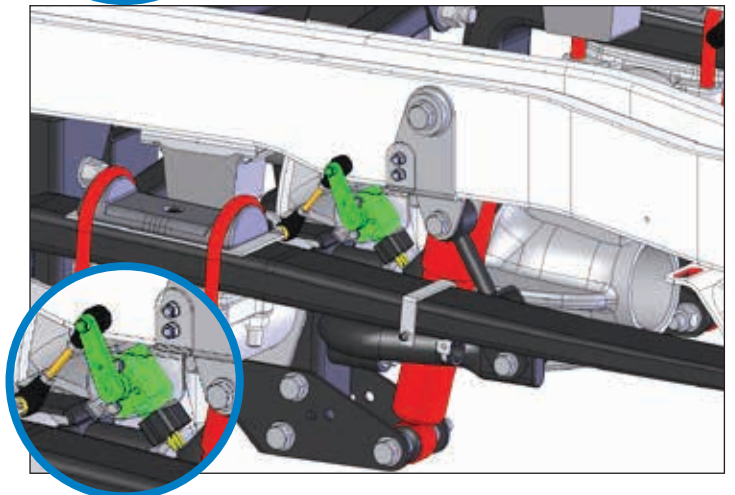
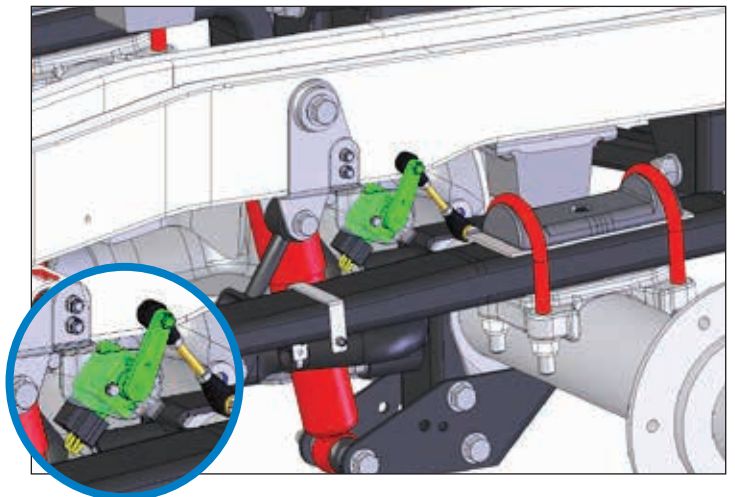
4x M6 Washer
4x M6 Lock nut



3. Check the length of the vertical bars.
- **90mm** - measured from heart-to-heart.
4. Mount the height sensor arms on the height sensors.
5. Mount the ball-joints on the axle.
6. Press the clips, to secure the bars.



ATTENTION: The height sensor arms must be pointed upwards.



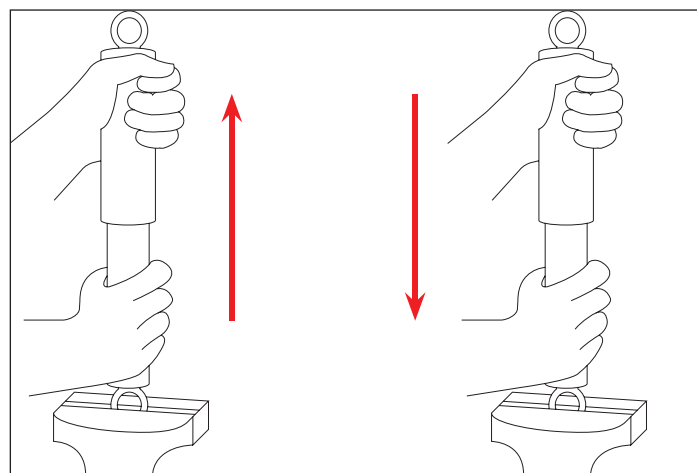
Shock absorber



ATTENTION: Before the shock absorbers can be mounted, the air has to be bled. Follow the next steps, to follow the instructions in the right way.



1. Bleed the air from the shock absorbers.
2. Clamp the shock absorbers vertical in a bench screw.
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.
6. Put the shock absorber vertically away.



ATTENTION: this step may take from 2 up to 20 times!



ATTENTION: Keep the top of the shock absorbers at all times up. If you don't do this, you will get new air in the shock absorber.

7. Mount the upper side of the shock absorbers.
**** Don't secure the bolts.**

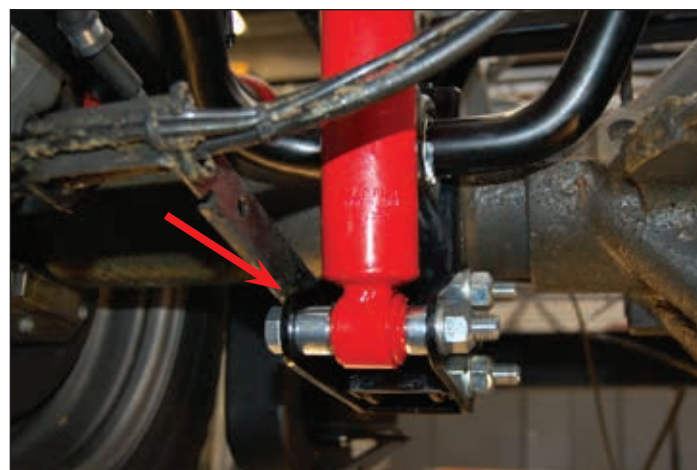


- 2x M14 Washer
- 2x M14 Lock nut



8. Mount the underside of the shock absorbers.
9. The long distance bush must come on the outside of the vehicle.
**** Don't secure the bolts.**

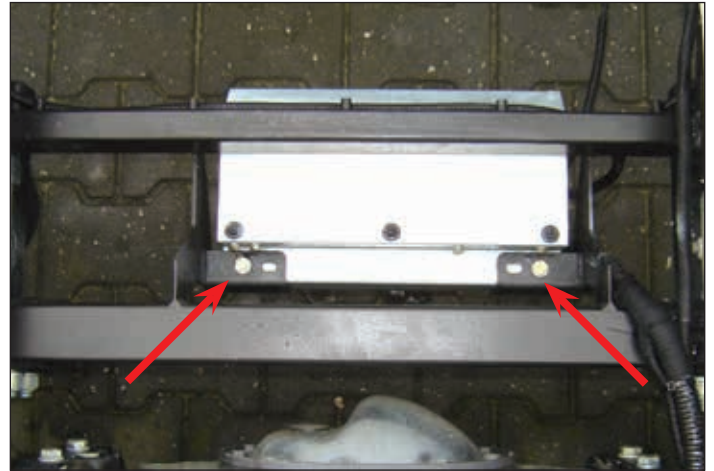
- 2x M14 x 110 Bolt
- 4x M14 Washer
- 2x M14 Lock nut



Compressor box

1. Mount the compressor box to the upper cross beam.
2. Secure the bolts.

4x M8 x 20 Bolt
4x M8 Washer

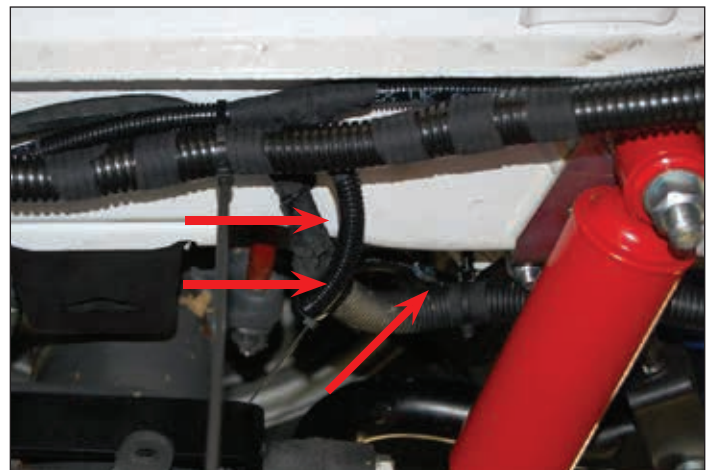


Wiring harness

1. Place the wiring harness to the front over the cross member, beyond the first cross beam.

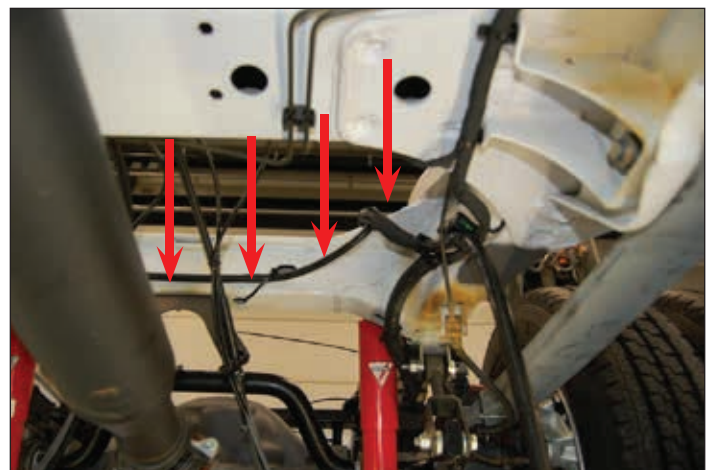


2. Mount the left height sensor cable on the height sensor.



ATTENTION: Make sure, that the tubes aren't in the near of hot or moving parts. Use sufficient tie-wraps to secure the lines.

3. Place the right height sensor cable along the upper cross beam.



4. Mount the right height sensor cable on the height sensor.



5. Mount the **black** air tube on the right air bellows.
6. Place the air tube through the upper cross beam to the compressor box.
7. Mount the **green** air tube on the left air bellows.

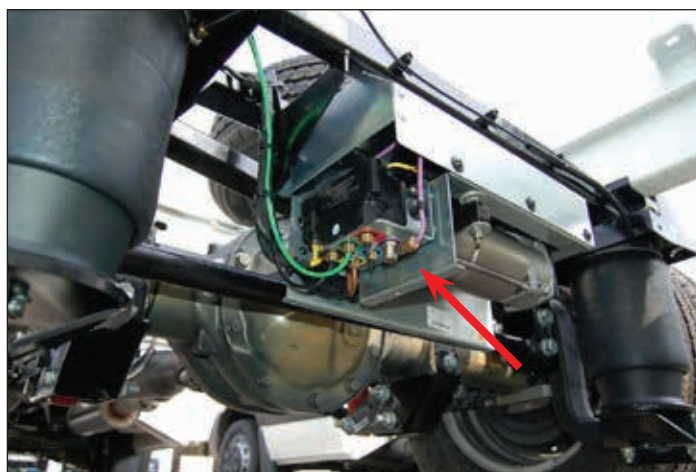


ATTENTION: Slide the air tube at least, 15mm in the air coupling.

8. Lead the air-tube over the rear crossbeam of the upper crossbeam to the compressor box.



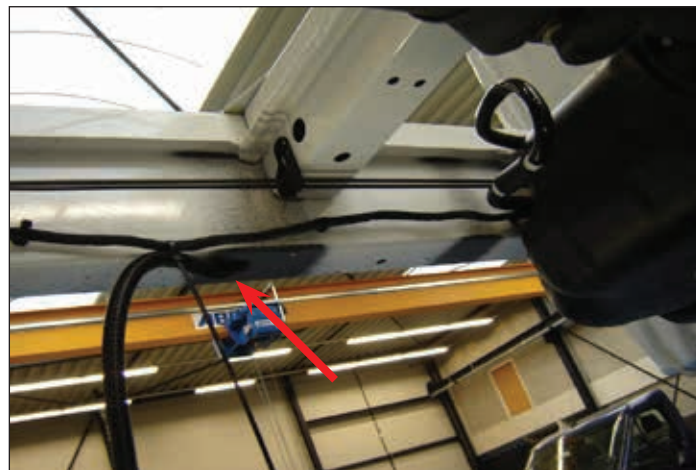
9. Mount the air-tubes on the compressor box.
10. Pay attention for the matching colour marker.



11. Place the rest of the wiring harness through the chassis to the front of the vehicle.



ATTENTION: *If the wiring harness don't fit in the bar, place the wiring harness along the chassis and secure them with tie-wraps.*



12. Remove the drivers seat.
13. Slide the seat to the front.
14. Remove the bolts.
15. Slide the seat to the back.
16. Remove the bolts.
17. Place the seat beside the vehicle, don't remove the seat belt.
18. Disconnect the wiring from the drivers seat if applicable.



ATTENTION: *Make sure the battery pole is loose, so there can't go a side-airbag off.*



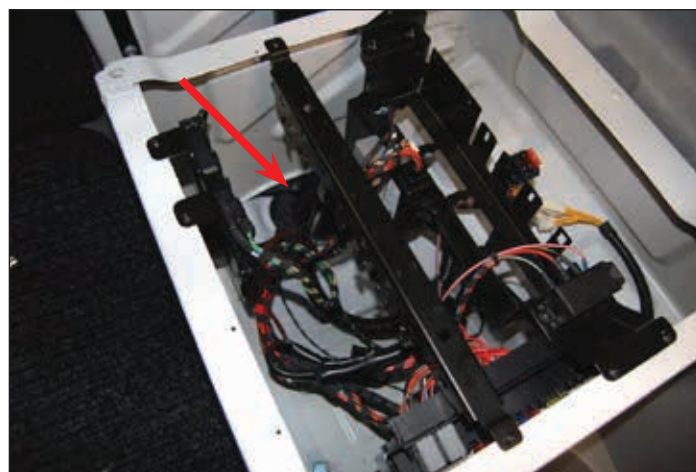
19. The hole where the wiring harness through the chassis comes, is on the front of the fuel tank.
20. Above the fuel tank is a cable tulle, which leads under the left seat inside the cab.
21. Place the wiring harness through the cable tulle.



ATTENTION: *Use sufficient tie-wraps to secure the cables*



22. Remove the plastic cover plate.
23. Lead the wiring inside.



In the cab



ATTENTION: The base vehicle has to be equipped with factory option: **EK1**
If not, please contact
VB-Airsuspension!

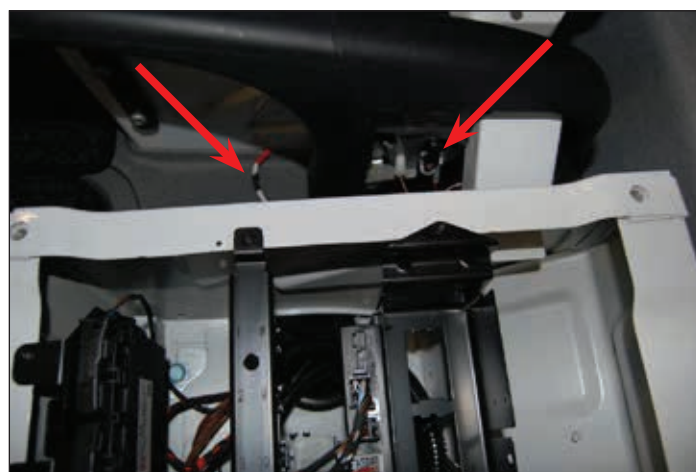
To the right you can see the remote (1) and extension cable (2) that have to be fitted now.



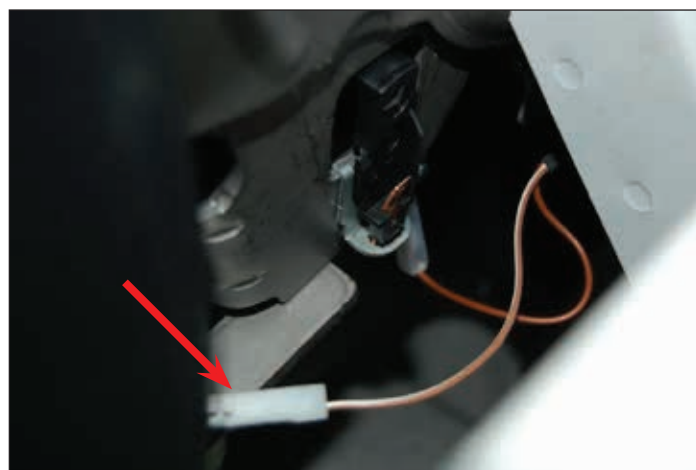
In order for the air-suspension system to function properly either the hand brake signal or the speed signal should be connected to it. In most cases the hand brake signal is to be used, which is explained in the next paragraph. When you have chosen for a speedsignal, follow the supplied manual, instead of the next paragraph.

Hand-brake signal

1. Lead the white wire from the supply cable underneath the seat console, to the hand-brake.



2. Remove the connector of the hand-brake.

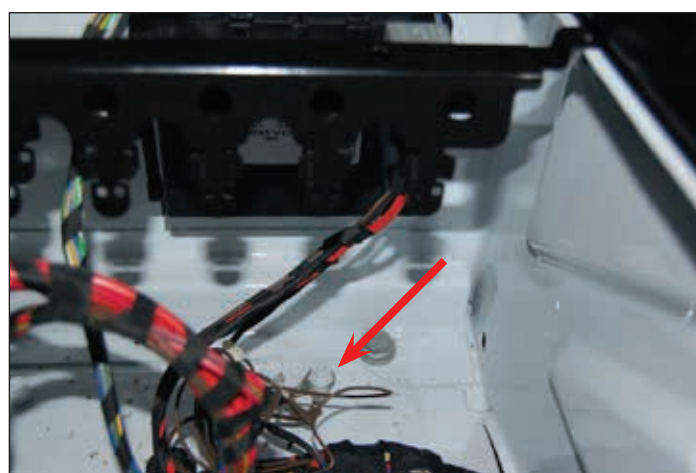
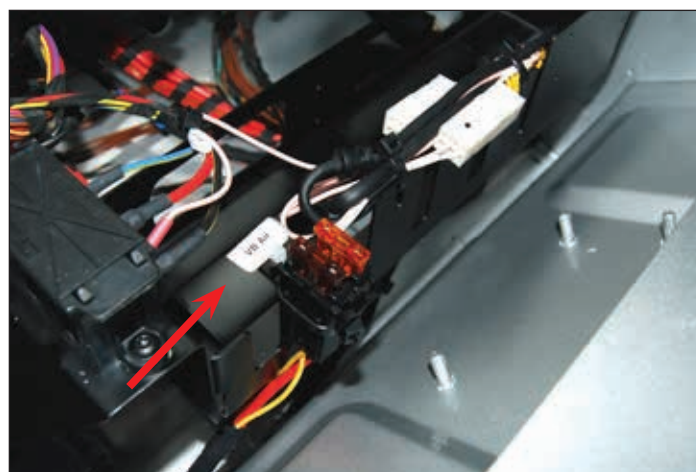
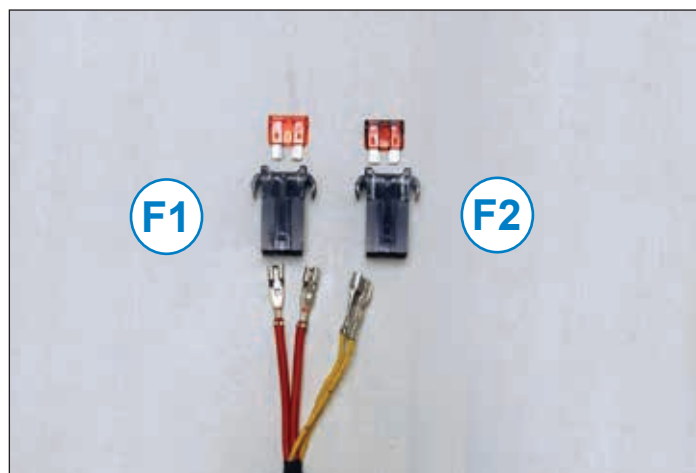


3. Connect the loosened connector to the white wire of the supply cable.
4. Mount the other connection plug of the supply cable on the connection of the hand-brake.



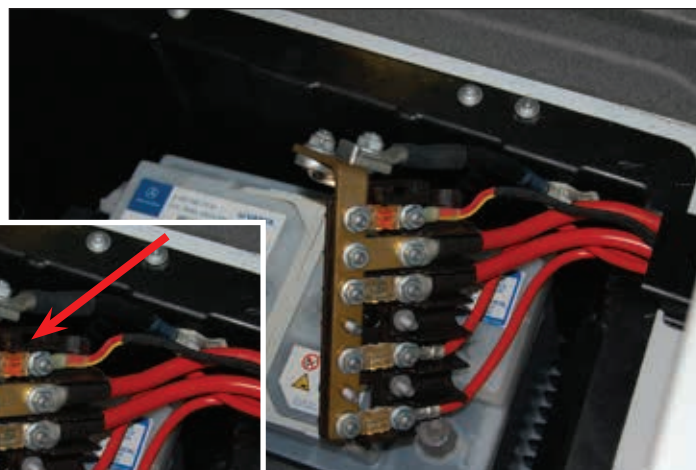
Remaining connections

1. Connect the red wires in a fuse block and insert a 40A fuse.
2. Connect the yellow wires in the other fuse block and insert a 7,5A fuse.
3. Mount the fuse blocks on the marked position with tie-wraps.
4. Mark the fuse blocks with a VB-label.
5. Connect the black wire to the earth point (-).



6. Lead the red wire to the positive (+) of the Battery.
7. Mount the yellow and red cables on the free position on the battery clip.
8. Use a 30A battery fuse.

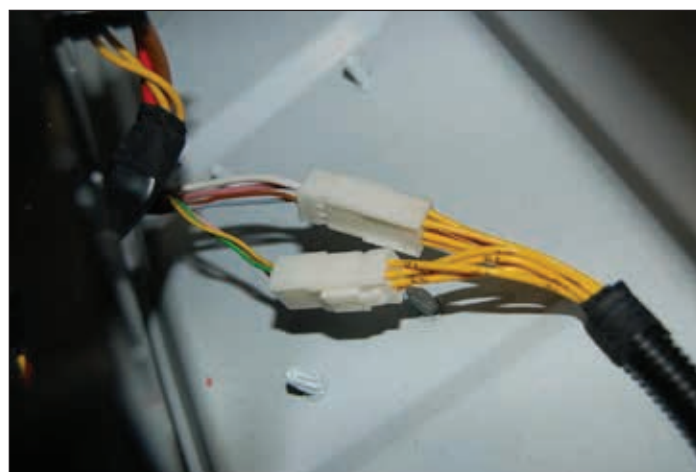
1x M6 Flangenut



9. Connect the pink cable from the supply-cable on the contact plus connection.

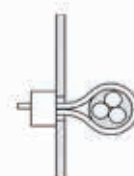


10. Connect the supply-cable to the white connector of the VB-wiring harness.



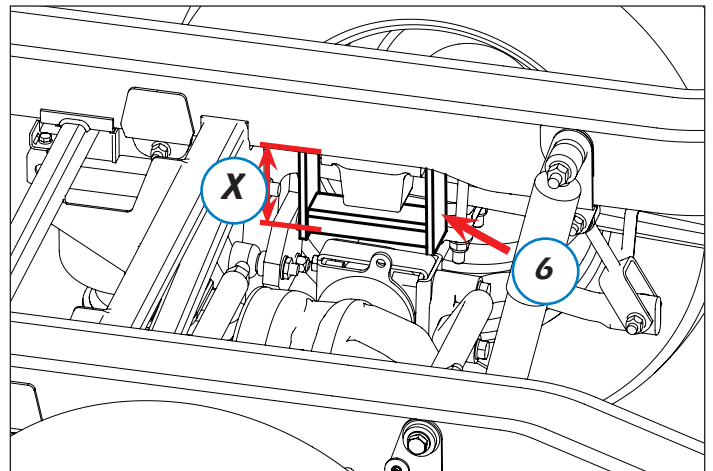
ATTENTION: VB-Airsuspension recommended the place on the picture. Make sure, that the remote control never comes in the way of the airbag.

11. Search for a good position to hang the remote control.
12. Mount the holder.
13. Hang the remote control in the holder.
14. Place the cable under the drivers seat to the VB-Wiring harness.
15. Mount the cable of the remote control on the VB-Wiring harness.



Calibration

1. Remove the 7,5A fuse,
2. Remove the white connector of the remote control.
3. Mount the calibration control on the free white connector.
4. Mount the 7,5A fuse.
5. Use the switch of the calibration control to lift the vehicle height enough, to place the calibration supports.
6. Check the height X of the calibration supports. (**X=120 mm**)
7. Mount the calibrations supports on the rear axle, under the chassis.
8. Release all air from the air springs, until you hear nothing.
9. Wait at least 1 minute, than the VB-ASCU can save the height. During this minute, the LED flashes quickly. If the values are saved, the LED flashes slowly.
10. Don't touch the switch during this minute, because than the calibration process will start again.
11. Pump, wenn the calibration is done, the air-suspension up.
12. Remove the calibration supports.
13. Remove the 7,5A fuse,
14. Mount the remote control on the white connector.
15. Mount the 7,5A fuse.
16. Put the vehicle at ride height.
17. Secure all bolts an nuts, which were marked in this manual with **
18. Align the rear axle correctly.



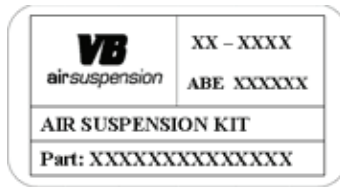
Warranty sticker

1. Place the warranty stickers A+B in the B-pillar on the passenger side.

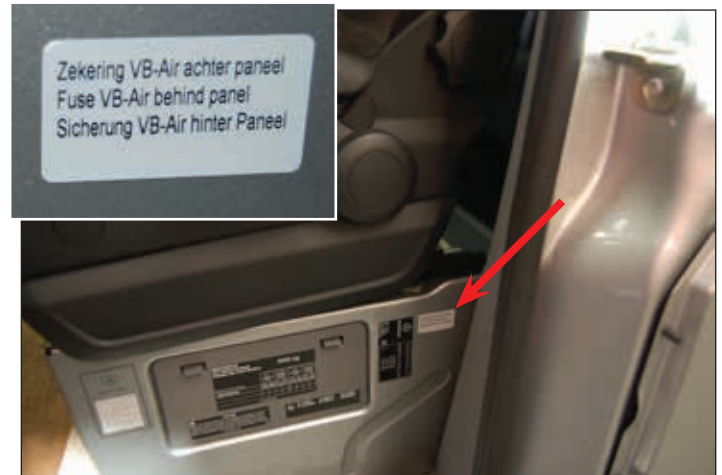
A



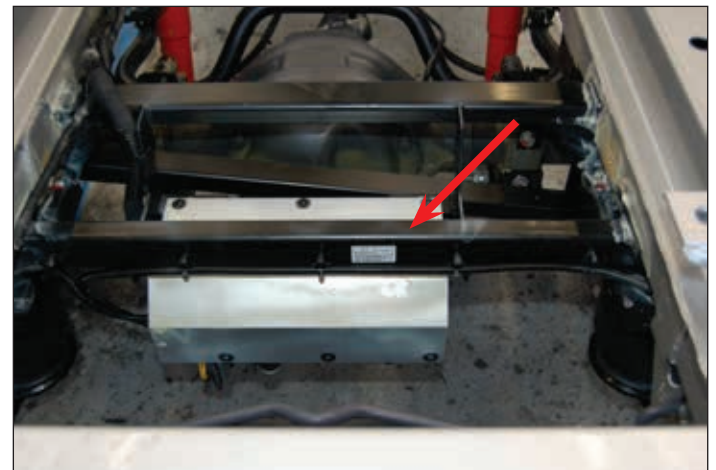
B



2. Place the sticker with fuses information on the seat console.



3. Place sticker B on the upper cross beam.



4. Note the transformation to the air-suspension kit into the maintenance booklet.
5. Check the vehicle according the checklist in this manual.

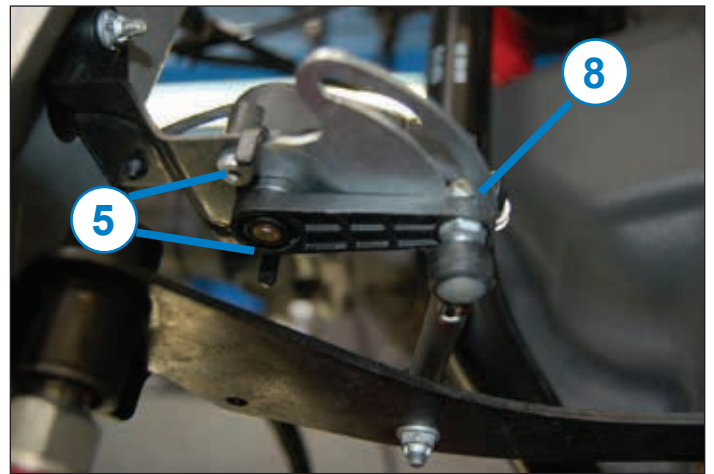


Xenon modification

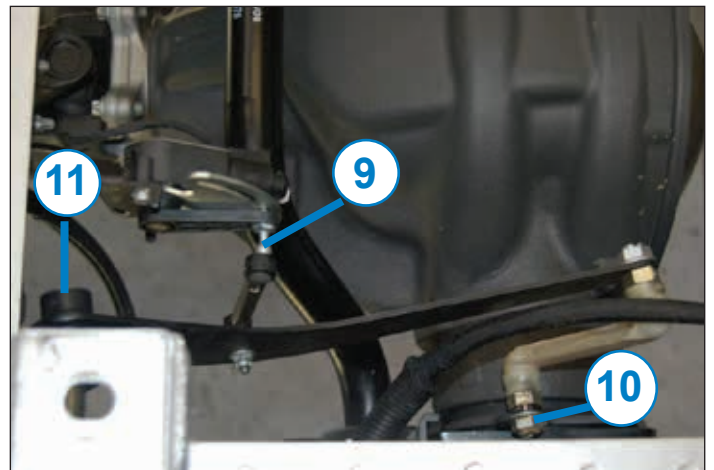
1. The picture shows the Xenon linkage, this prevented the fitting of the air-suspension kit.
2. The Xenon height adjustment is unnecessary, the air-suspension systems keeps the ride-height constant.



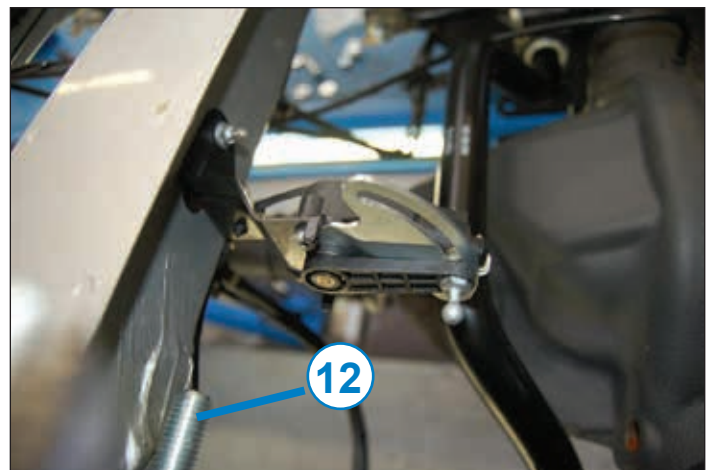
3. Make sure the vehicle is on ride-height.
4. Remove the ball-joint and both height sensor bolts.
5. Mount the support.
6. Make sure the vehicle is on ride-height.
7. Mount the coupling ball, to secure the height sensor.



8. Remove the height sensor bracket off of coupling ball.
9. Remove the linkage off the rear axle.
10. Remove the linkage off the chassis.



11. Remove the bolt of the chassis.



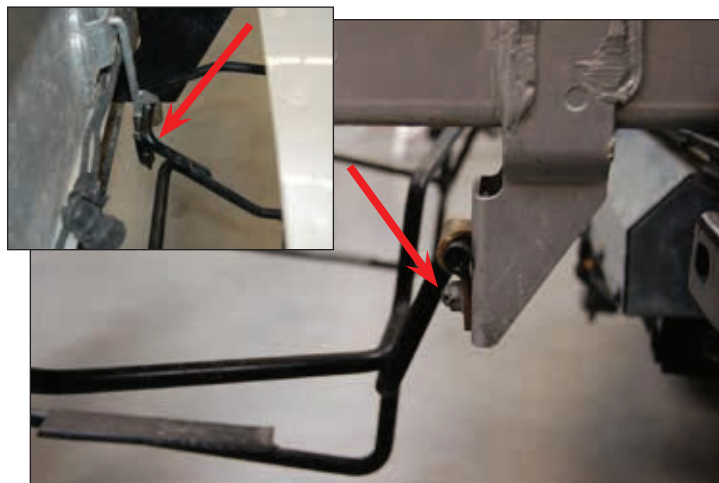
ATTENTION: Check the height of the light by a official dealer.

Spare wheel



ATTENTION: When the vehicle is equipped with a spare wheel, and a wheelbase of 3665mm has. Than has the spare wheel to be moved.

1. Remove the spare wheel.
2. Remove the spare wheel rack.
3. Remove the associated supports.



4. Remove the entire flange, to create place for the upper cross beam.



ATTENTION: Protect the surface with an anticorrosion substance. For example: protective coating or spray-wax.

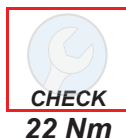


ATTENTION: Make sure, don't hit the chassis member.

5. Mount the brackets on the upperside of the mounting plate.



- 2x M8 x 20 Bolt
- 4x M8 Washer
- 2x M8 Lock nut



6. Mount the spare wheel rack.
7. Mount the spare wheel.
8. Use the original bolts and nuts.



Checklist

System finishing

OK

Chassis height, near the rear axle, checked.

☐

Shock absorbers set-up and relieved of air

☐

Height sensor correctly mounted

☐

Rear axle correctly aligned.

☐

Tubes, cables and connectors correctly mounted.

☐

Bolts and nuts tightened on the right torque and checked off in the manual.

☐

System checked for air-leaks

☐

Space around the air-springs checked

☐

Present documentation checked.

☐

Warranty form filled out and identification sticker stuck.

☐

Transformation of air suspension written down in maintenance booklet.

☐

Functions of system

OK

Manual raising

☐

Automatic lowering

☐

Manual lowering

☐

Automatic raising

☐

Test drive approved

☐

Torque recommendations

Specific torque values

Position	Torque
Leaf-spring bracket	240 Nm
Leaf-spring U-bolt	160 Nm
Shock absorber, upper placement	160 Nm
Shock absorber, under placement	160 Nm
Air-spring, upper placement UNC 3/8"	20 Nm
Air-spring, under placement UNC 3/8"	20 Nm
Air-coupling in the air-spring 1/8"	5 Nm
Panhard rod ball-joint, castelled nut	75-85 Nm
Thread end M6	6 Nm

Standard torque values

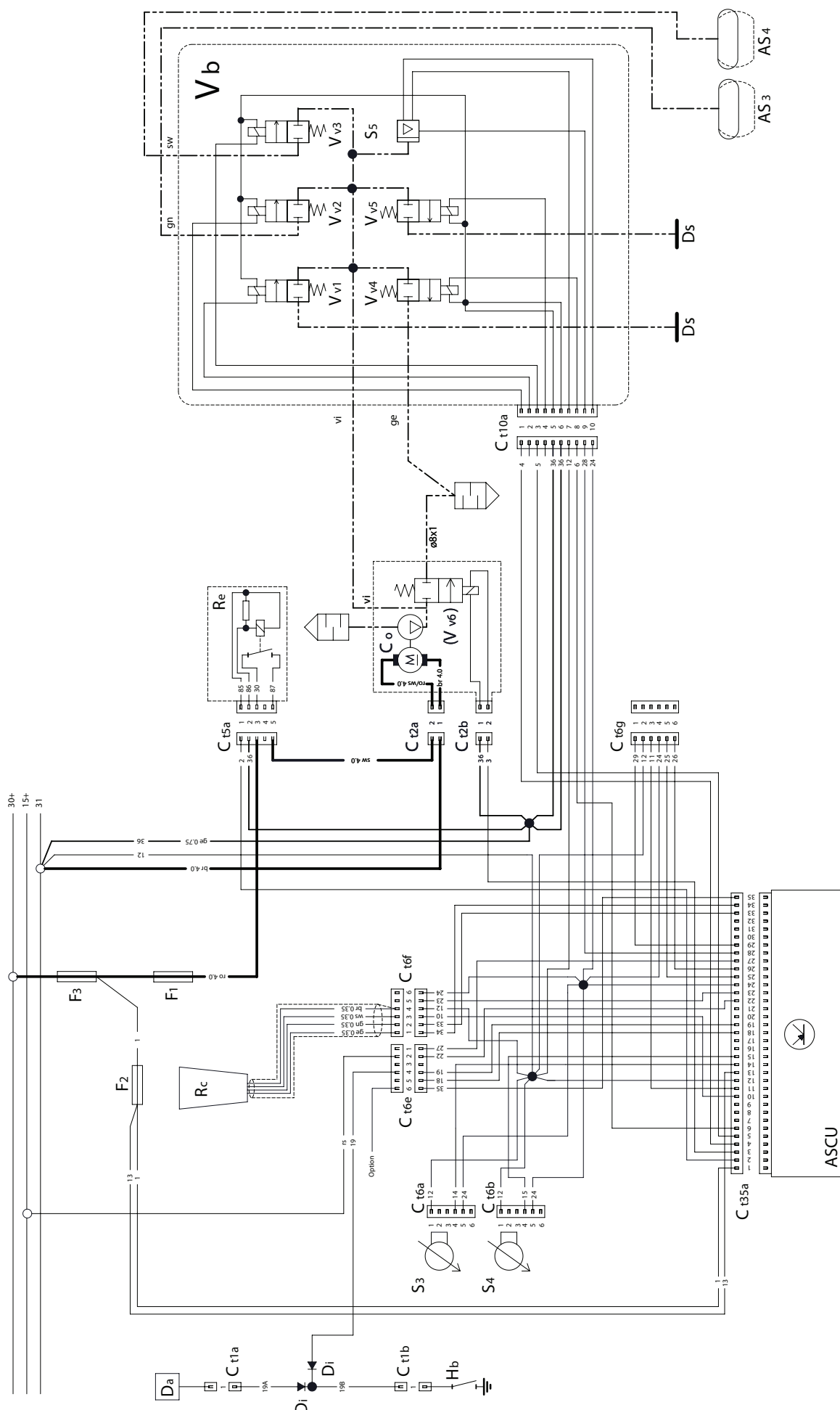
Bolt type	Pitch	Grade 8.8	Grade 10.9
M3	0.50 mm	1 Nm	1.5 Nm
M4	0.70 mm	4 Nm	6 Nm
M5	0.80 mm	6 Nm	8.5 Nm
M6	1.00 mm	8.5 Nm	12.5 Nm
M7	1.00 mm	14 Nm	20.5 Nm
M8	1.00 mm	22 Nm	32 Nm
M8	1.25 mm	20.5 Nm	30 Nm
M10	1.00 mm	45 Nm	67 Nm
M10	1.25 mm	43 Nm	64 Nm
M10	1.50 mm	41 Nm	60 Nm
M12	1.25 mm	77 Nm	112 Nm
M12	1.50 mm	74 Nm	108 Nm
M12	1.75 mm	71 Nm	104 Nm
M14	1.50 mm	121 Nm	175 Nm
M14	2.00 mm	113 Nm	165 Nm
M16	1.50 mm	180 Nm	270 Nm
M16	2.00 mm	170 Nm	250 Nm
M18	1.50 mm	270 Nm	390 Nm
M18	2.50 mm	245 Nm	350 Nm



ATTENTION: Torque values represented here are intend to be for general information. The tolerance on the values is +/- 10%.

[illegible]

Wiring diagram



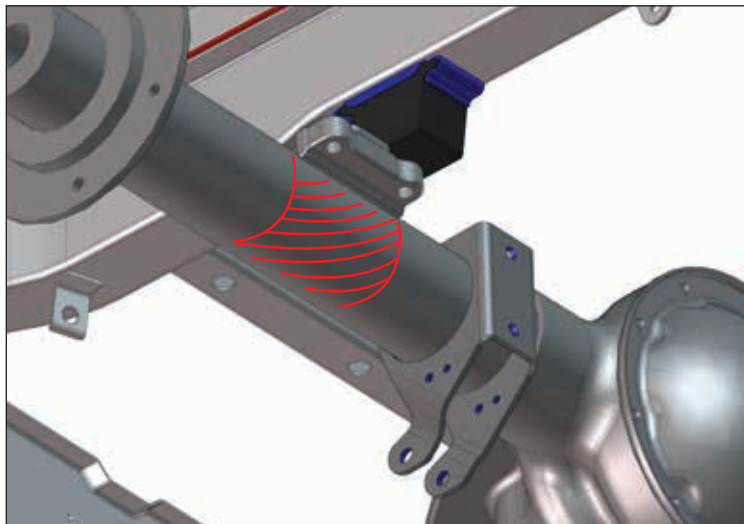
Name	Description
ASCU	VB-ASCU (control unit)
AS3	Airspring, left
AS4	Airspring, right
Ct1a	Connector, 1-pole, to dashboad
Ct1b	Connector, 1-pole, to handbrake
Ct2a	Connector, 2-pole, compressorbox
Ct2b	Connector, 2-pole, valve on compressor
Ct5a	Connector, 5-pole, relay Re
Ct6a	Connector, 6-pole, height sensor S1
Ct6b	Connector, 6-pole, height sensor S2
Ct6e	Connector, 6-pole, VB-supply wire (white)
Ct6f	Connector, 6-pole, remote controle Rc (white)
Ct6g	Connector, 6-pole, option connector
Ct10a	Connector, 10-pole, valve block connection
Ct35a	Connector, 35-pole, VB-ASCU control unit
Co	Compressorbox
Da	Dashboard
Di	Diode
Ds	Blind cap
F1	Fuse compressorbox, 40A
F2	Fuse compressorbox, 7,5A
F3	Fuse BF1 on the battery 30A
Hb	Handbrake
Re	Compressorbox relay
Rc	Remote controle
S1	Height sensor, left
S2	Height sensor, right
S5	Pressure sensor on valve block
Vb	Valve block
Vv1	Valve for air-spring, right front on valbe block
Vv2	Valve for air-spring, left rear on valbe block
Vv3	Valve for air-spring, right rear on valbe block
Vv4	Dump valve, to release air on valve block
Vv5	Valve for air-spring, left front on valbe block
Vv6	Release valve on compressorbox
Colourcode: (not mentioned, is yellow with wire number)	
bl	Blue
br	Brown
ge	Yellow
gn	Green
ro	Red
ro/ws	Red/White
rs	Pink
sw	Black
vi	Violet
ws	White
_____	0,50 mm ²
_____	0.75 mm ²
_____	4,00 mm ²
- - - - -	Air-tube

Reinforcement plate on the rear axle



ATTENTION: When the vehicle is not equipped with option code **Z45** or **AL1** the reinforcement plate in this chapter should be fitted.

1. Remove the protective layer from the rear axle where the reinforcement plate will be mounted (as shown in the picture).
2. Place the spring plates on the ball-joint brackets.

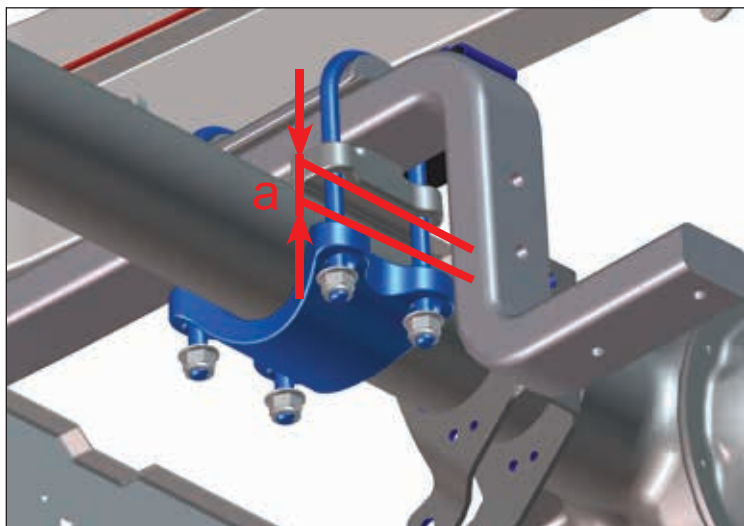


3. Place the new longer U-bolts on the rear axle.
4. Place the reinforcement plate to the rear axle.
5. Fasten the new nuts to the U-bolts, but don't secure them yet.
6. Use anti-seize compound on the screw thread.



ATTENTION: The reinforcement plate must have the same distance (max ± 1 mm difference) to the spring seat on the front and rear side (dimension a).

7. Fit the nuts with steps of 90° each until **60 Nm** is reached.
8. Measure the thread distance of all nuts (dimension b).



ATTENTION: The maximum thread distance difference (b) is max 3mm. Thread distance difference > 3mm, Adjust!

9. Fasten the nuts in step of 90° each until **170 Nm** is reached.

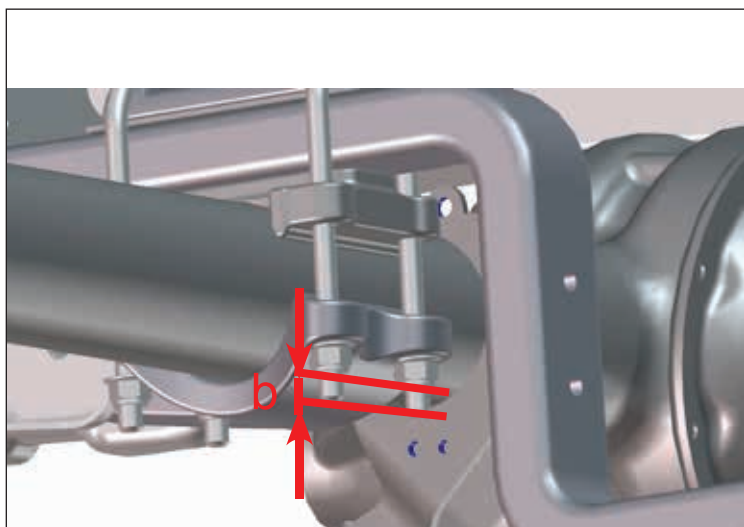
4x U-bolt
8x Nut

Step 1: 60 Nm
Step 2: 170 Nm



ATTENTION: Protect the rear axle and reinforcement plate surfaces with an anticorrosion substance. For example: protective coating or spray-wax.

10. Continue with paragraph 'Upper cross beam'



[illegible]

[illegible]

Notes:

