

Iveco Daily 60-65C

with VB-SemiAir for the front axle



Fitting instructions

For Kit nr: 155010510X



© 2008 VB-Airsuspension bv, Varsseveld

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the publisher's prior consent.

This air suspension kit has been carefully developed especially for this vehicle. The air suspension should fit perfectly on a standard vehicle, not equipped with any optional after market parts. However, whenever a problem occurs, please contact your air suspension supplier.

This manual has been carefully crafted to provide the best way to fit the air suspension. 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.

Always place the vehicle onto a car-lift when working on it. Make sure the rear wheels are always supported. Make sure the vehicle is correctly secured when fitting the air-suspension.

When fitting the air-suspension, make sure no parts are being damaged.

The air-suspension is designed to support the manufacturer's Gross Vehicle Weight Rating (GVWR). Never overload the vehicle, as it may result in damage to the air-suspension or vehicle. The vehicle should be weighed when it is fully loaded and in a level condition. This is to determine if the manufacturer's recommended GVWR is exceeded.

If the air-suspension fails, stop the vehicle and don't drive with it. Only in an emergency the vehicle can be driven at low speed and with precautionary measures.

Fitting of the air suspension kit can only be done in a from VB-Airsuspension authorised workshop, equipped with all appropriate equipment and tools, by an authorised mechanic with proper training and experience in the following fields (all in the range of light commercial vehicles):

- Mechanics
- Electronics
- Pneumatics

When fitting the air-tubes make sure that they don't bent to much. Always cut the air-pipes in a right angle. Make sure that the air-pipes are clean on the inside.

It is absolutely forbidden to secure air-tubes, cables or other parts to the brake lines of the vehicle.

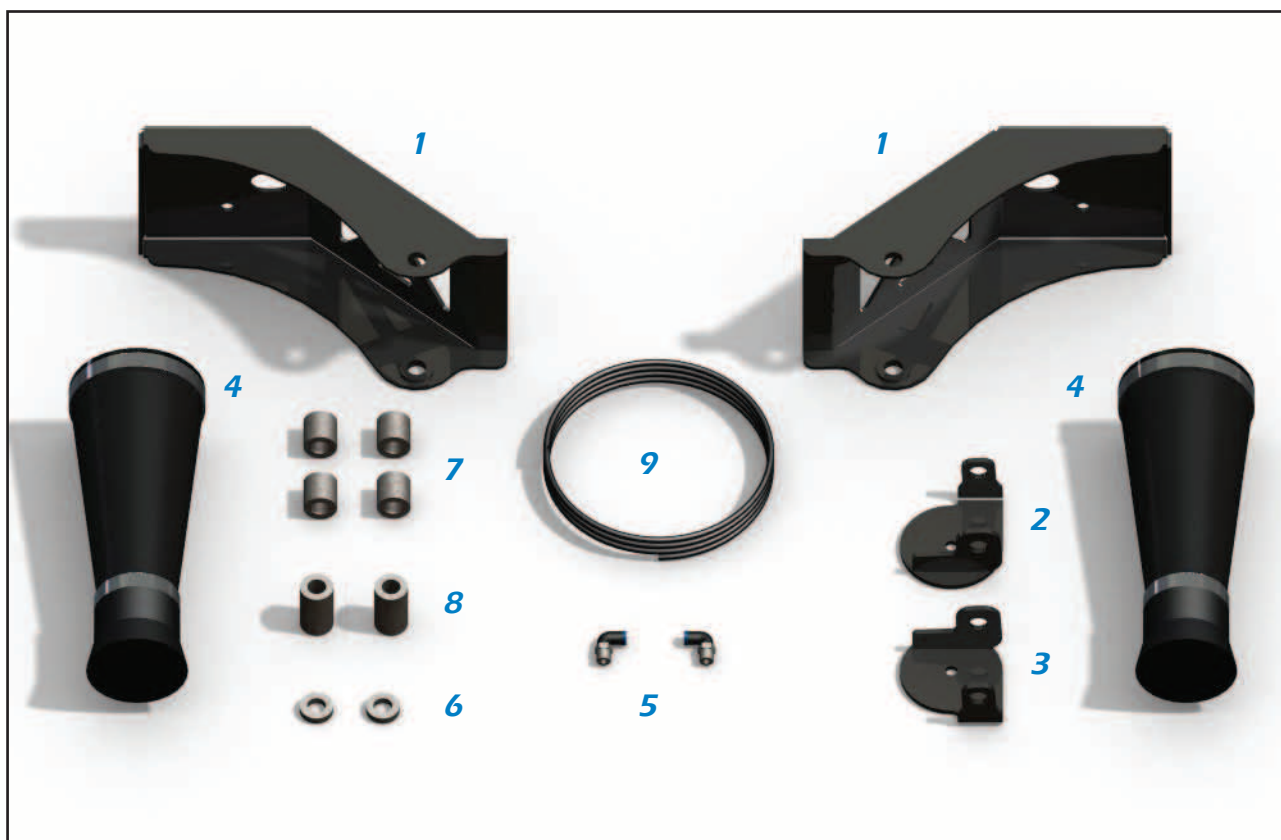
Secure all connectors properly and make sure that there is no stress on them.

Whenever changes are made to the original corrosion protection, restore it immediately. For this purpose use for example paint or spray wax. Attention: do not apply corrosion inhibitor to non metal parts!

When the vehicle is in it's ride-height, tighten all the bolts and nuts to the final torque. Whenever a torque mentioned in this manual conflicts with the torque recommended by the vehicle manufacturer always use the one recommended by the vehicle manufacturer.

In the case of any conflicts, in any of the points mentioned above, please contact your air suspension supplier for technical assistance.

1 Overview of the air-suspension kit

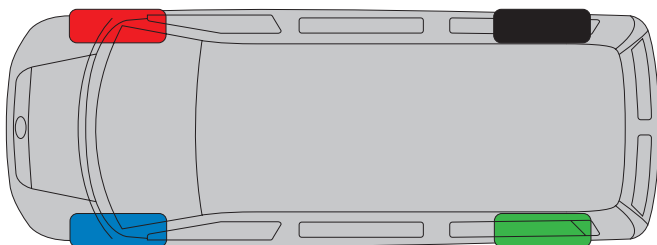




The Air-suspension kit consists of numerous different parts. To keep things clear, only the main parts have been included on the above picture. The more common parts, like for example the fitting materials, have been left out.

Nr.	Description
1	Upper spring support
2	Lower spring support R
3	Lower spring support L
4	Air-spring
5	Air-connection
6	Distance bush
7	Distance bush
8	Distance bush
9	Air-tube

Attention: This Air suspension kit can only be fitted in combination with the spacer kit. Therefore contact VB-Airsuspension!

For an overview of the positions where all different parts are to be fitted, please check the exploded view in the annex. Here you can also find the part numbers. Some parts are different for left or right. To see the differences and to be sure to fit the parts on the correct position, these parts are marked with colours. Here you can see the explanation.



Color	Description
	Front left
	Front right

Tires / Rims / Spacers

For the front axle auxiliary air-suspension kit, is a minimum space required for a correct fitting of the air-spring. This space is depending on the tire size, rim size (ET-measure) and spacers. To calculate the minimum required thickness of the spacer the next formula is made:

$$(Tire\ width / 2) + ET-Measure - Thickness\ of\ the\ spacer < 195mm$$

For example.:

$$(225 / 2) + 115\ mm - 37\ mm = 190,5\ mm \rightarrow \text{is OK}$$

$$(225 / 2) + 112\ mm - 0\ mm = 224,5\ mm \rightarrow \text{is NOT OK}$$

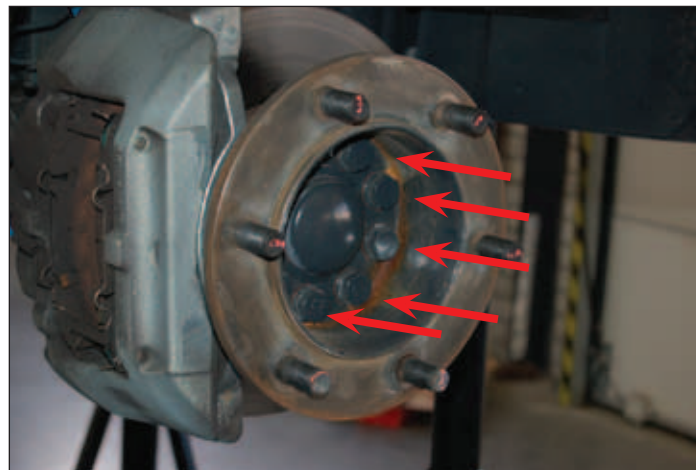
In the lower table different combinations are listed:

Spacer	Tire width	ET-Measure	Space	OK ?
37 mm	225	112 mm	187,5 mm	
37 mm	225	115 mm	190,5 mm	
0 mm	255	78 mm	190,5 mm	
0 mm	225	112 mm	224,5 mm	

For all other combinations, the formula can be used.

2 Fitting of the spacers

1. Loosen the 9 marked bolts from the wheel hub and remove the flange.



1. Make sure the vertical surface is clean, If necessary, remove the corrosion with sand paper.



1. Check if the thickness from the spacers 37mm is.
2. Put the spacer to the brakedisc as showed on the picture.



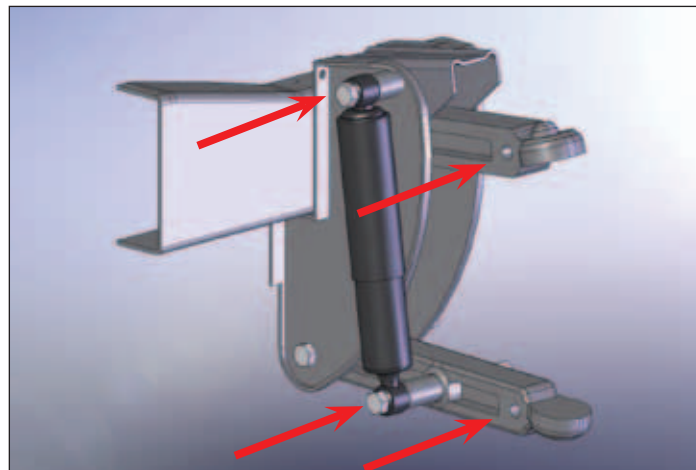
1. Fit the flange on the spacer as on the picture.
Use the new bolts to secure it.

18x M14x90 Bolt
18x M14 Washer
Torque: 120 Nm



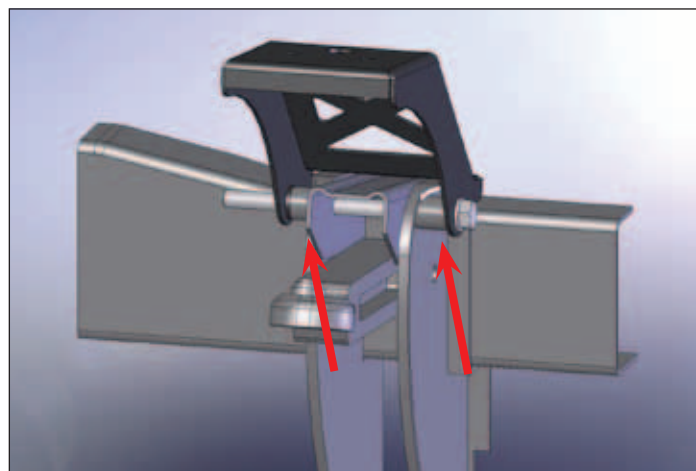
3 Fitting of the air suspension kit

1. Be sure the vehicle is supported properly.
2. Make the front wheels hanging free.
3. Remove the front wheels.
4. Dismount the shock absorbers and the original distance bushes by loosening the marked bolts.



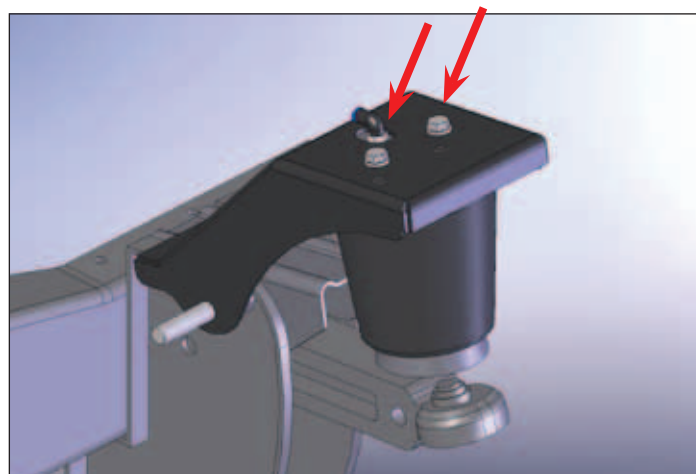
1. Put the upper spring support with the distance bushes (L=30mm) on the chassis as on the image.

2x M16x220 Bolt
2x M16 Washer



1. Fit the air-connections to the air-springs.
Torque: 10 Nm
2. Secure the air-springs to the upper spring support.

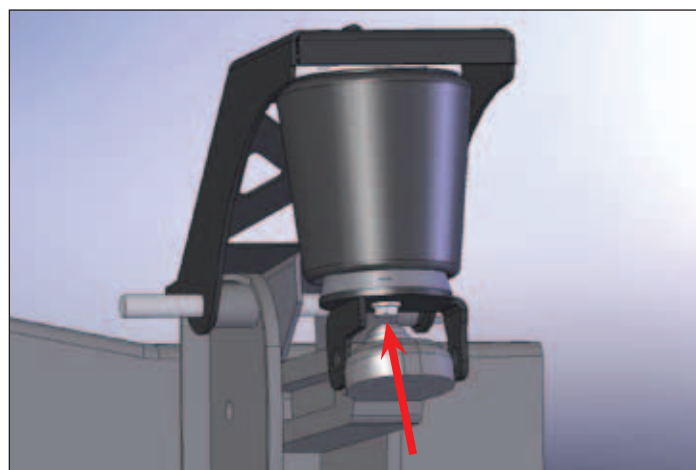
4x UNC 3/8"x5/8" Bolt
4x M10 Washer
Torque: 10 Nm



1. Now secure the lower spring support to the air-springs. **Pay attention to the difference between the left and right support.**

2x UNC 3/8"x3/4" Bolt
2x M10 Washer
Torque: 10 Nm

**** Do not secure these bolts yet.**

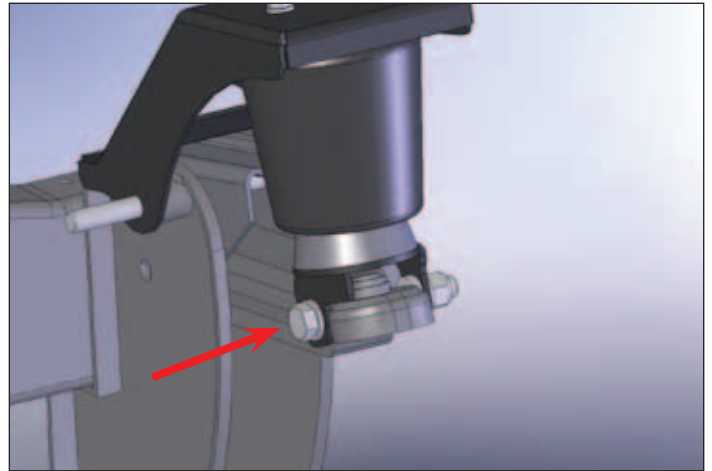


Attention: Notice the colour marks on the separate parts, see page 3 for details!

1. Fit the lower spring support to the suspension arm. Use the little distance bush (L=7mm) on the front side.

2x M16x120 Bolt
 4x M16 Washer
 2x M16 Locking nut
Torque: 180 Nm

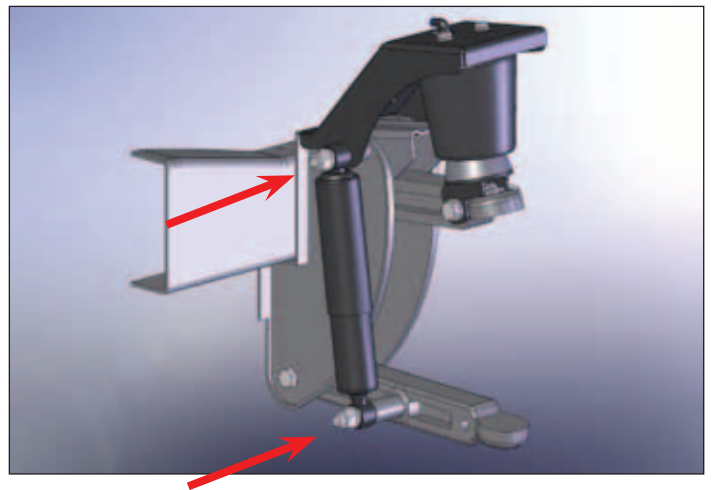
**** Do not secure these bolts yet.**



1. Put the lower bolt in the suspension arm.
2. Secure the lower diagonal bar to the suspension arm using the original bolts.
3. Put the distance bush (L=51mm) on the lower bolt.
4. Now secure the shock absorber on the original place.

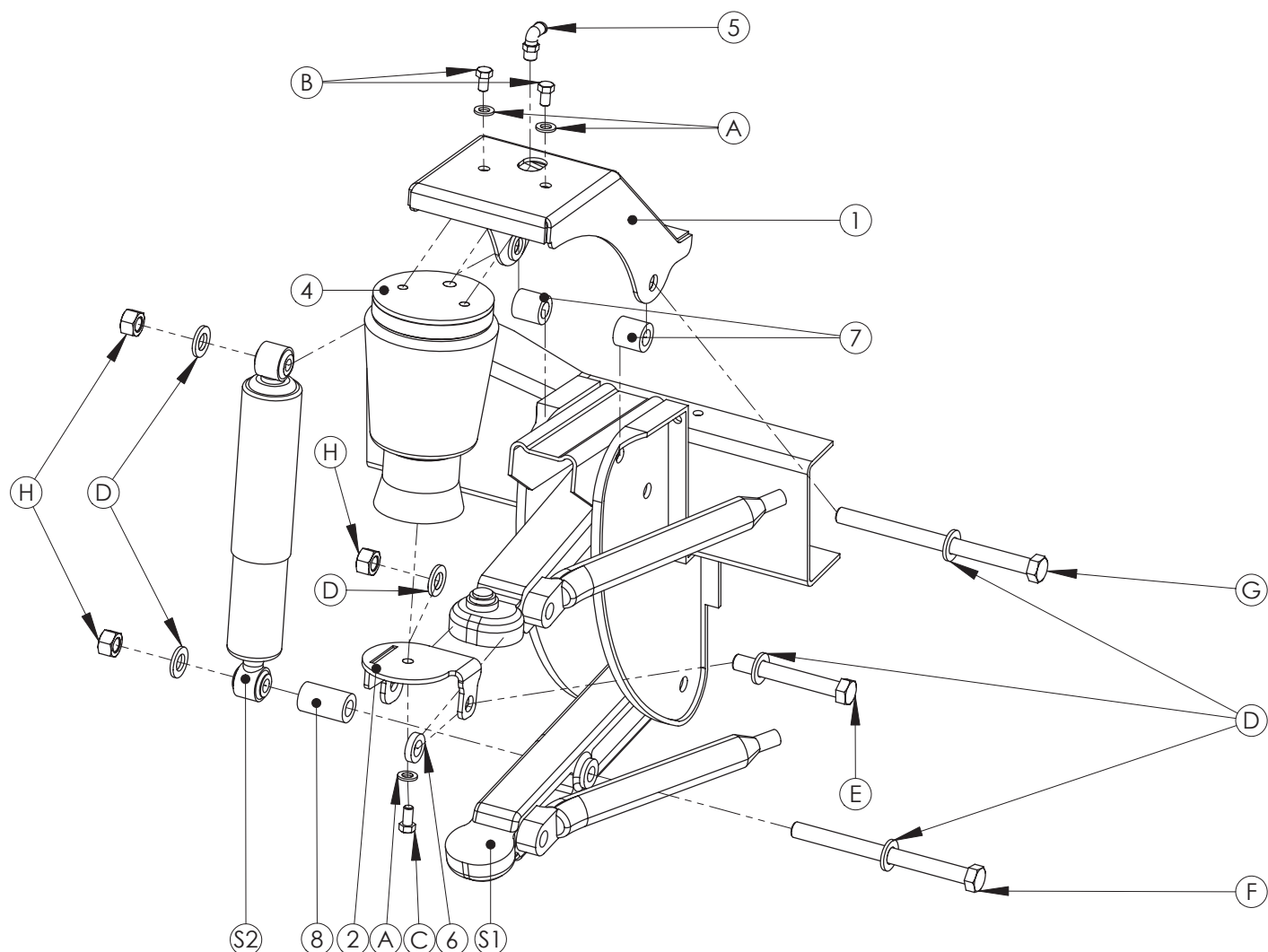
2x M16x200 Bolt
 6x M16 Washer
 4x M16 Locking nut
Torque: 180 Nm

**** Do not secure these bolts yet.**



1. Fit a piece of air-tube to the air-springs and lead them to a accessible place.
2. Mount the valves to the air-tube. Mark which valve is for the right airspring and which is for the left.
3. Now fill the air-springs with air.
4. Now secure all bolts and nuts, which are marked by **, to the recommended torque.
5. **Be sure the spacers are mounted yet (37mm), before the wheels are refitted! See chapter 2.**

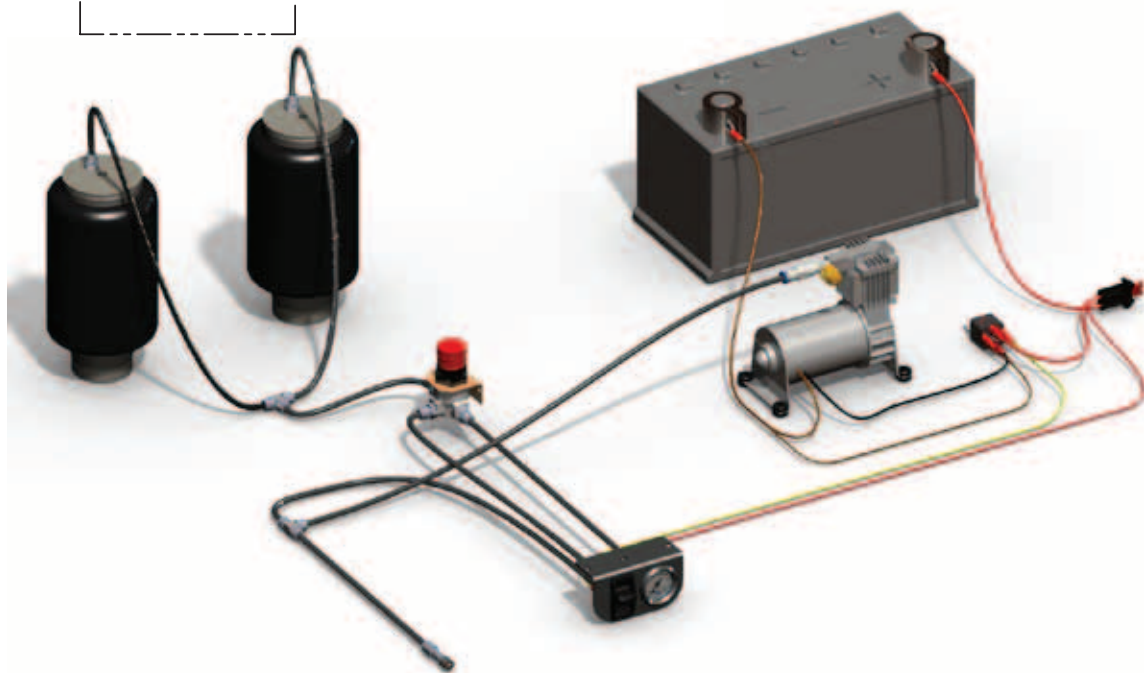
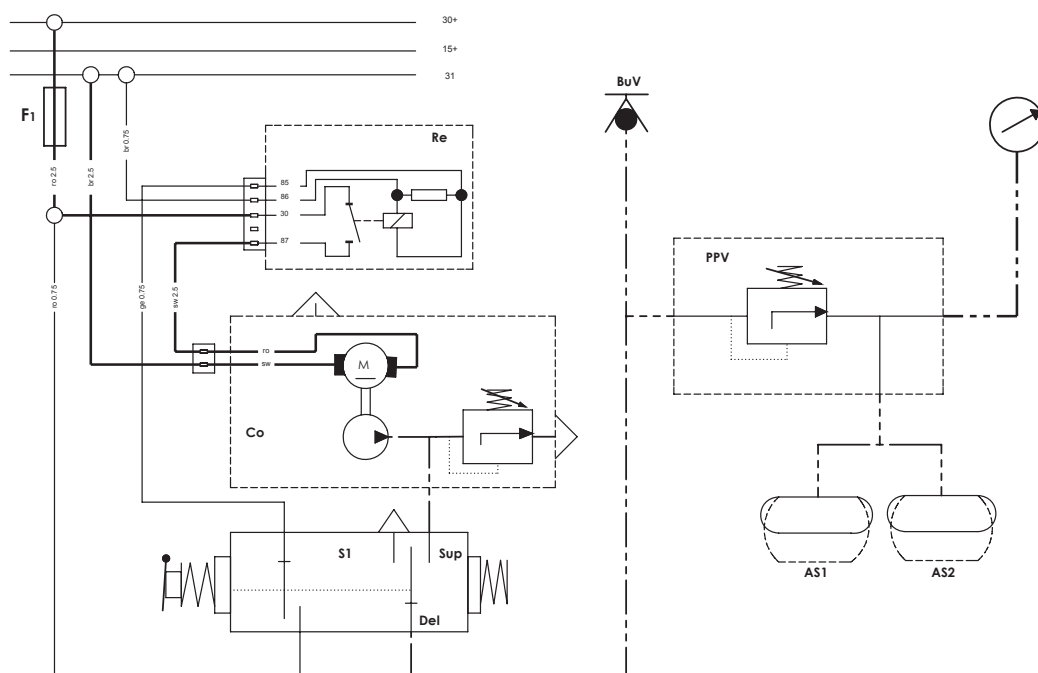
4 Exploded view



Nr.	Qty.	Description	Art.nr.
1	2	Upper spring support	1502040000
2	1	Lower spring support R	1502050001
	1	Lower spring support L	1502050000
4	2	Air-spring	1052030163
5	2	Air-connection	0020100030
6	2	Distance bush	0014200020
7	2	Distance bush	0014200018
8	2	Distance bush	0014200019

Nr.	Qty.	Description	Art.nr.
A	6	Washer M10	0011210000A
B	4	Bolt UNC 3/8"x5/8"	0010238058A
C	2	Bolt UNC 3/8"x3/4"	0010238034AA
D	12	Washer M16	0011216000A
E	2	Bolt M16x120	0010116120CA
F	2	Bolt M16x200	0010116200CA
G	2	Bolt M16x220	0010116220CA
H	6	Locking nut M16	0011016001B

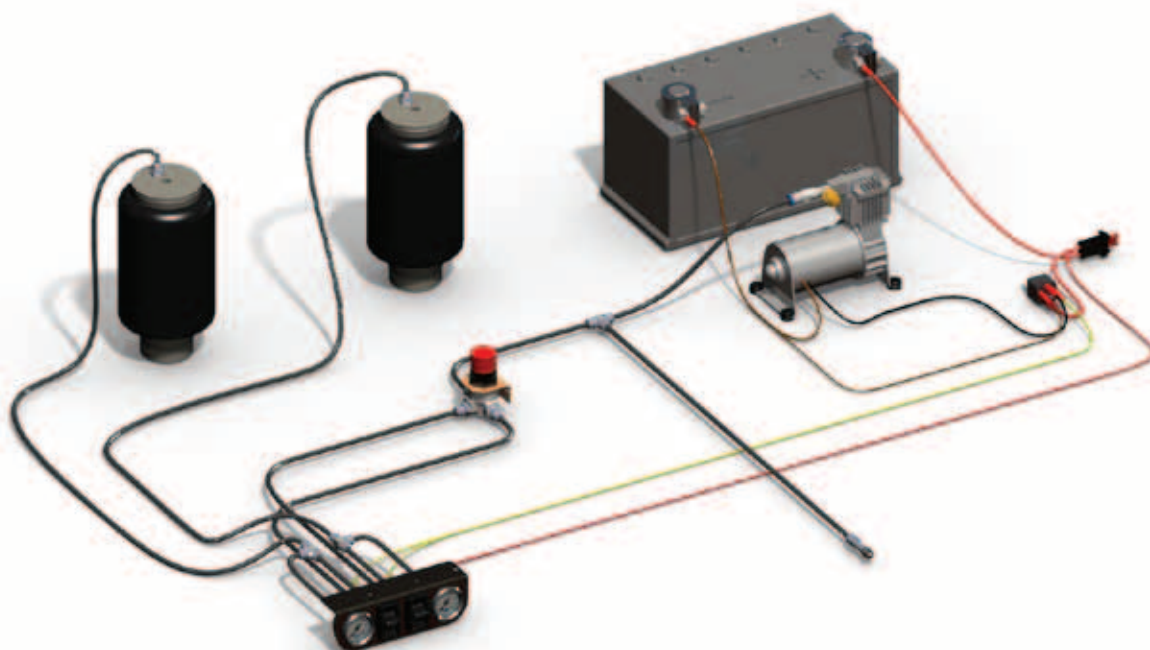
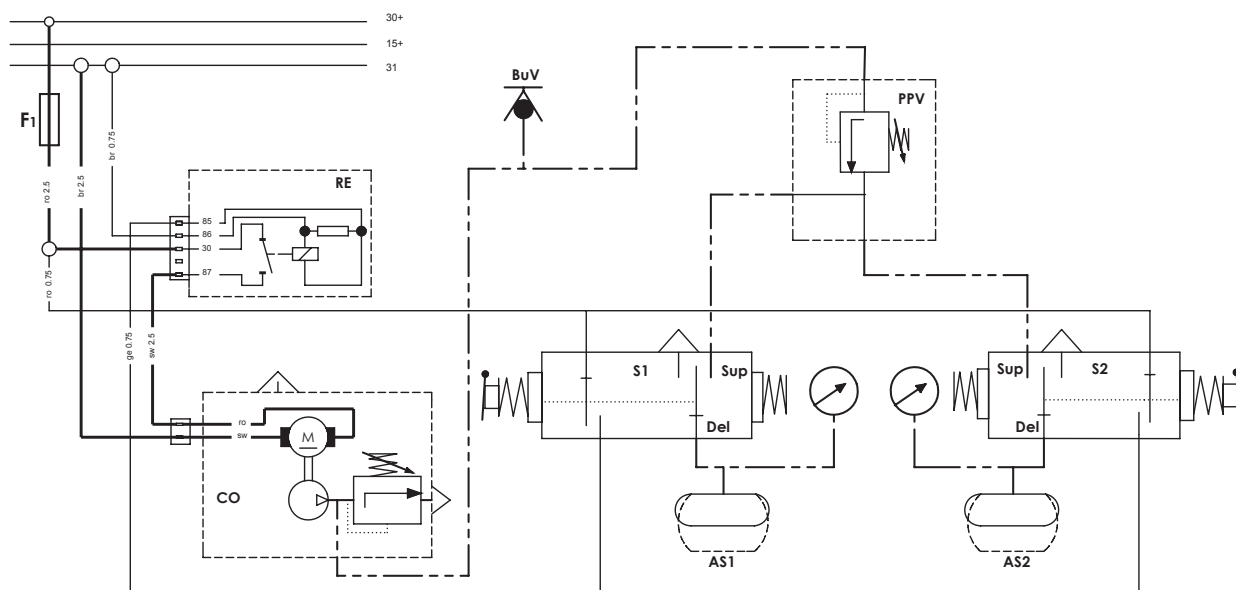
5 Wiring diagram single air-circuit



AS1	Airspring left
AS2	Airspring right
S1	Switch dashbord electric / pneumatic
Co	Compressor
Re	Compressor relay
PPV	Pressure protection valve
BuV	Back-up valve
F1	Fuse 25A

br	Brown
ro	Red
ge	Yellow
sw	Black
—	0,75 mm ²
—	2,50 mm ²
— . . . —	Airtube ø6mm

6 Wiring diagram double air-circuit



AS1	Airspring left
AS2	Airspring right
S1	Switch dashbord electric / pneumatic
S2	Switch dashbord electric / pneumatic
Co	Compressor
Re	Compressor relay
PPV	Pressure protection valve
BuV	Back-up valve
F1	Fuse 25A

br	Brown
ro	Red
ge	Yellow
sw	Black
—	0,75 mm ²
— — —	2,50 mm ²
— . . —	Airtube ø6mm

7 Torque recommendations

Torque values represented here are intend to be for general information, not for specific installations. In special instances, where the torque values of the factory service manual deviate from the torque values recommended here, always follow the factory service manual.

Bolt type.	Grade 8.8	Grade 10.9
M6 x 1.00	8.5 Nm	12.5 Nm
M7 x 1.00	14 Nm	20.5 Nm
M8 x 1.00	22 Nm	32 Nm
M8 x 1.25	20.5 Nm	30 Nm
M10 x 1.00	45 Nm	67 Nm
M10 x 1.25	43 Nm	64 Nm
M10 x 1.50	41 Nm	60 Nm
M12 x 1.25	77 Nm	112 Nm
M12 x 1.50	74 Nm	108 Nm
M12 x 1.75	71 Nm	104 Nm
M14 x 1.50	121 Nm	175 Nm
M14 x 2.00	113 Nm	165 Nm
M16 x 1.50	180 Nm	270 Nm
M16 x 2.00	170 Nm	250 Nm
M18 x 1.50	270 Nm	390 Nm
M18 x 2.50	245 Nm	350 Nm
M20 x 1.50	380 Nm	540 Nm
M20 x 2.50	350 Nm	490 Nm
M22 x 1.50	510 Nm	720 Nm
M22 x 2.50	470 Nm	670 Nm

All the above listed torque values are in Nm. (NOT in lb.-ft.) The tolerance on the values is +/- 10%.



VB-Airsuspension B.V.
Postbus 130 7050 AC Varsseveld
Frankenweg 3 Varsseveld
The Netherlands
T: +31 (0)315 241075 F: +31 (0)315 244232
info@vbairsuspension.com

VB-Airsuspension France S.A.R.L.
73, rue Principale
67310 Traenheim
France
T: +33 (0) 689 062469 F: +33 (0) 388 044070
steinpatz@vbairsuspension.fr

VB-Airsuspension UK L.T.D.
Unit 13, Elder Court, Lions Drive
BB1 2EQ Blackburn, Lancashire
United Kingdom
T: +44(0)1254 848010 F: +44 (0)1200300110
drinkwater@vbairsuspension.co.uk

VB-Airsuspension Deutschland GmbH
Heydastraße 10
D-58093 Hagen
Deutschland
T: +49 (0)2331 62474 0 F: +49 (0)2331 62474 10
info@vbairsuspension.de

