

EN

FITTING INSTRUCTIONS

making everyday smoother



PEUGEOT BOXER, FIAT DUCATO, CITROËN JUMPER, OPEL/VAUXHALL MOVANO X250/X290

***VB-SemiAir - Basic kit & Comfort kit
rear axle***

FOR KIT: 1550307100 & VBSA-X250-0XXXX



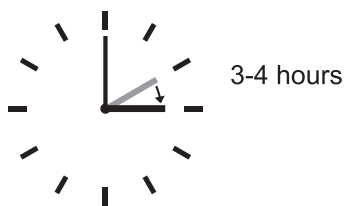
REVISION TABLE

Document number	0101550305-02		
New revision:	V01		Old revision: V00
Release date (yyyy-mm-dd):	2024-10-15		
Page (new):	Changes:		
8	Step 6: Updated note box		
11	Step 10: Updated tool specification		




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1. FITTING TIME

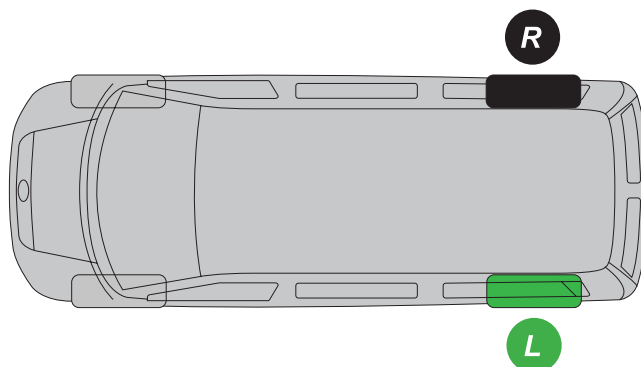


2. SYMBOLS




Tighten	Tighten with torque	Note
	 X Nm	








3. COLOUR MARKINGS

Colour	Description
Green	Rear left
Black	Rear right



4. VEHICLE

Make	Trade name	Year		Year	
Fiat Ducato	X250/X290	>2006	 / 	>2021	
Peugeot Boxer				-	
Citroën Jumper				-	
Opel/Vauxhall Movano				-	

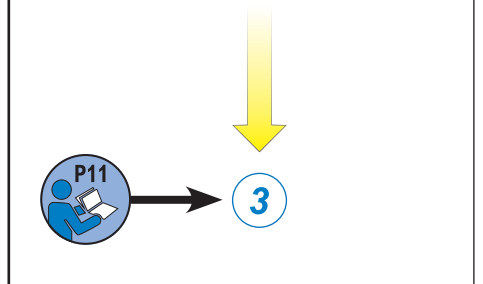
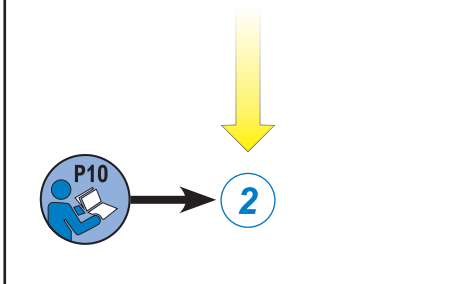
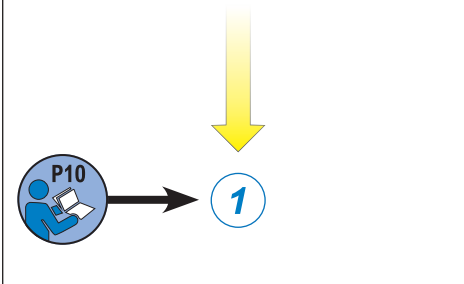
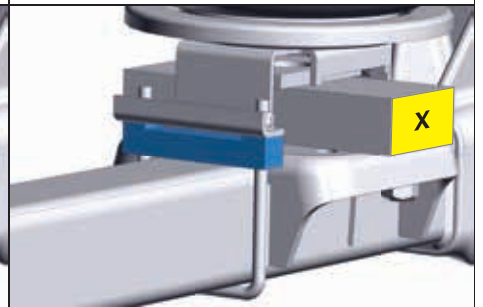
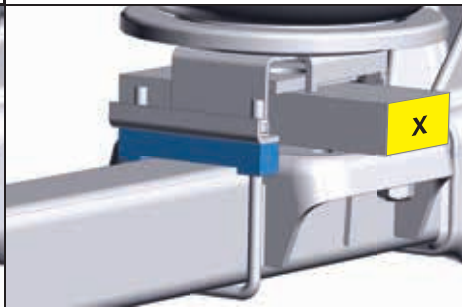
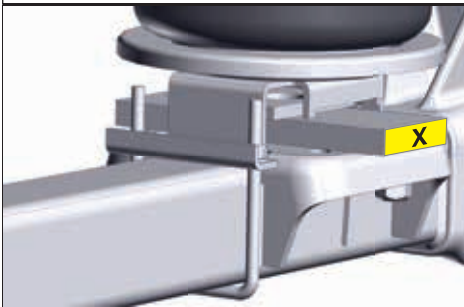
 Motorhome comfort kit		 Motorhome comfort kit with electric handbrake		 LCV comfort kit	
 X250	 X290	  X290		 X250	 X290
 		 		 	



X = 16 / 18 mm

X = 32 / 34 mm

X = 35 / 37 mm



5. PARTS

Item	Quantity	Description	Item number
A	2	Upper bellows support	1552040019
B	4	Spring plate	1506370224
C	2	Air spring	1505370208
D	2	Base plate ¹⁾	1552050094
E	2	Bolt M10x20x1,25	0010110020BA
F	6	Disc spring M10xØ22	0012010000
G	8	Allen screw M10x20	0010310020AA
H	4	Disc spring M10xØ16	0012010016
I	2	Air coupling Ø6 x G1/4" perpendicular	0020906021
K	4	Lock nut M8	0011008001AA
L	4	Washer M8	0011208000AA
N	2	U-bolt M8	1552010012
O	2	Spacer plate	1552020017

		Replacement Parts	
-	-	kit 1552030006B contains the components A t/m I	1552030006B

¹⁾ The kit identification number is shown on this part.



Item	Quantity	Description	Item number
1	4	Blind rivet nut M8	12908004
2	4	Spring washer M8	0011408000A
3	4	Bolt M8x25	0010108025CA
4	2	Bolt M6x16	0010106016AA
5	4	Washer M6	0011206000AA
6	2	Lock nut M6	0011006001AA
7	2	Pipe clamp Ø20	0014100006
8	2	Bracket	1552350045



6. FITTING INSTRUCTIONS

This manual has been put together with great care and describes the steps for installing the air suspension indicated on the front page. However, the content of this manual is a snapshot view of the situation as at the time it was written.

Your vehicle may differ from the vehicles shown in the photographs. In some cases, it may not be possible to fit specific parts in the position indicated. In this case, you are advised to identify an alternative position for the parts yourself. The parts must remain dry at all times. Install the compressor in the vehicle at all times.

In an alternative position, the compressor and the control panel parts must remain within the dimensions of the interior (the parts must remain dry at all times).

VB-Airsuspension reserves the right to introduce technical changes at any time without warning.

VB-Airsuspension is not liable for any damage resulting from not following these fitting instructions.

- Use vehicle workshop manuals where necessary.
- Always follow the vehicle manufacturer's conversion instructions, unless expressly stated otherwise in this manual.
- Keep workplace clean and tidy.
- Consult with the customer as to where they want the inflation valves fitted.
- Always tighten nuts and bolts to the specified torque.
- If alterations are made to the original anti-corrosion system, this must be remedied immediately. Use spray wax or a protective coating for this purpose.
- Always refit removed tubes and wires in the same way that they were originally fitted.
- Secure pipes and wires with a sufficient number of tie-wraps.
Ensure that the wires cannot be placed under tension.
- The supply cable must be at least 100 mm away from the ABS/ESP block, the sensors and other control equipment.
- Wires must not be routed above or across the battery.
- Ensure that there are no tight bends in air-tubes and that they cannot be kinked or chafe against other parts.
- Never attach air-tubes, wires or other parts to the vehicle's brake lines.
- Fit the air tubes in accordance with the colour code system used by VB-Airsuspension.
- Do not leave any tools, cleaning cloths or other materials behind after completing work.
- Check the system for air tightness after fitting.
- Check that the air springs always have at least a 1 cm all-round clearance at maximum pressure ($p_{max} = 3.5 \text{ bar}$).
- Take the vehicle for a test drive after fitting.

7. KIT INSTALLATION

1. Support the vehicle and the axle properly.
2. Remove the bump stops.



3. Slide the handbrake cable clips back.

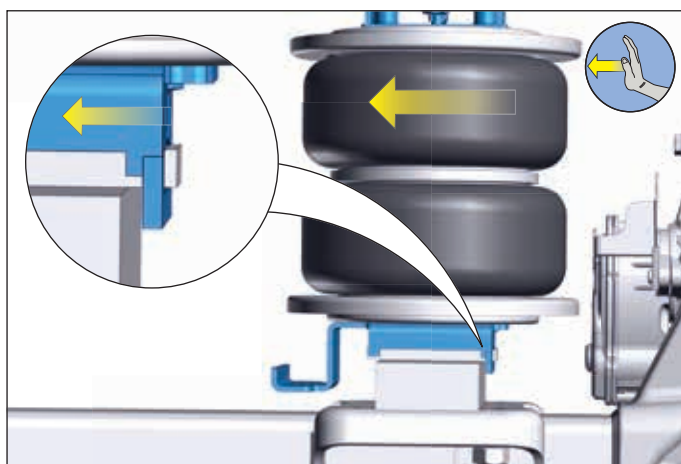
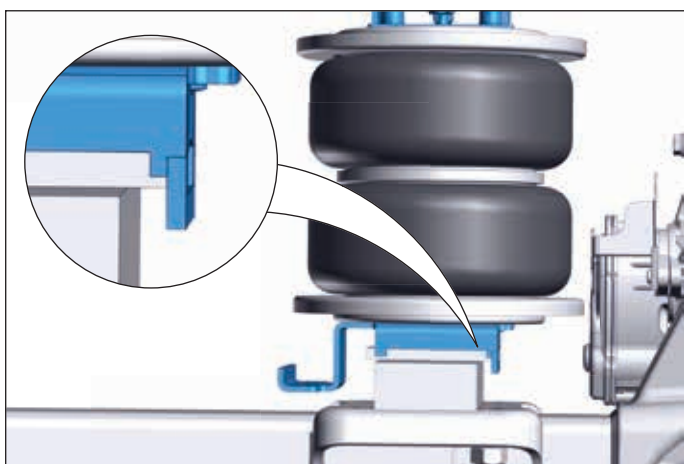
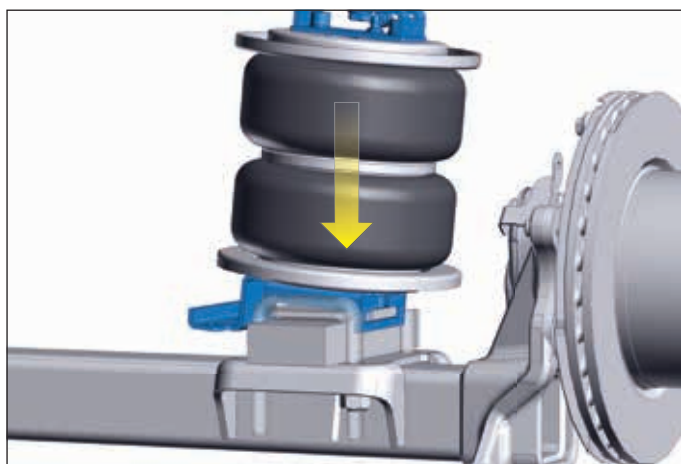
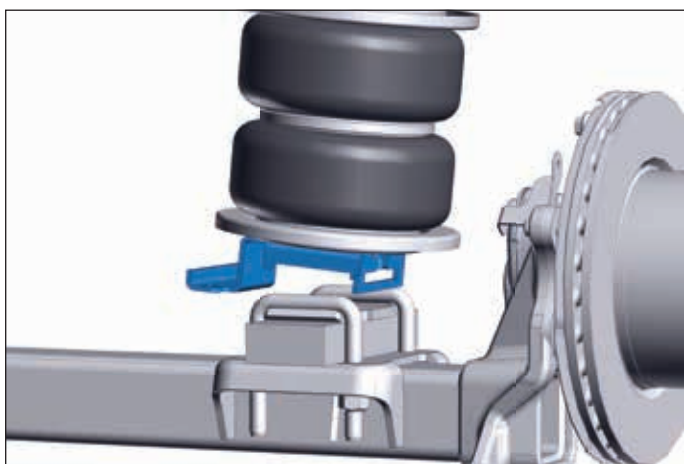


4. Fit the air tubes to the air springs.
5. Connect the green air tube to the left air spring.
6. Connect the black air tube to the right air spring.



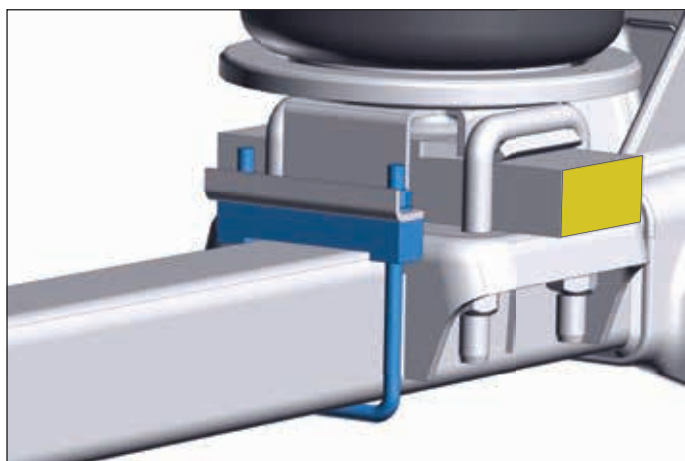
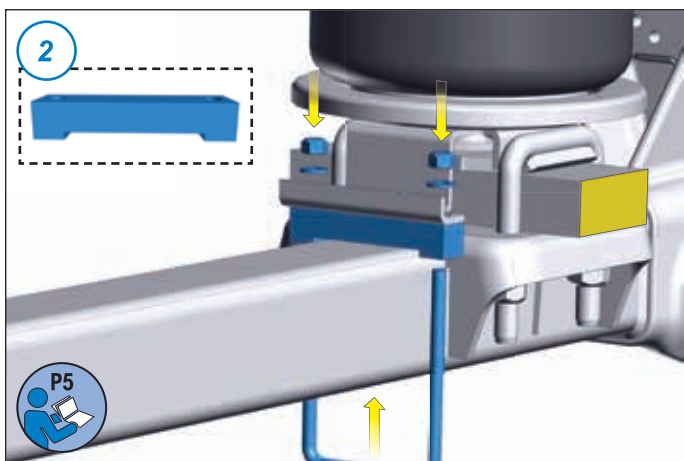
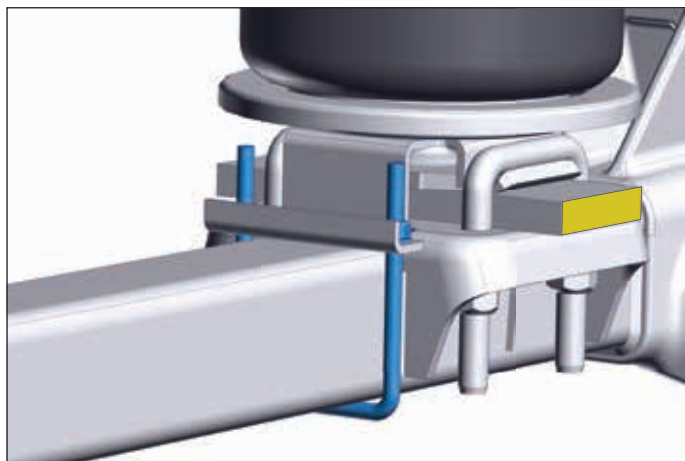
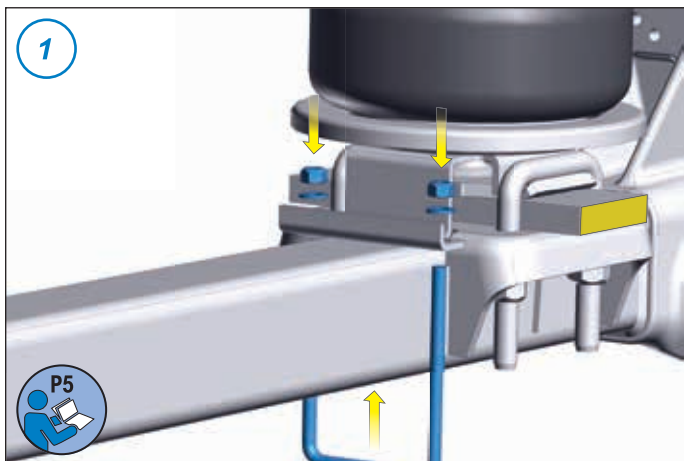
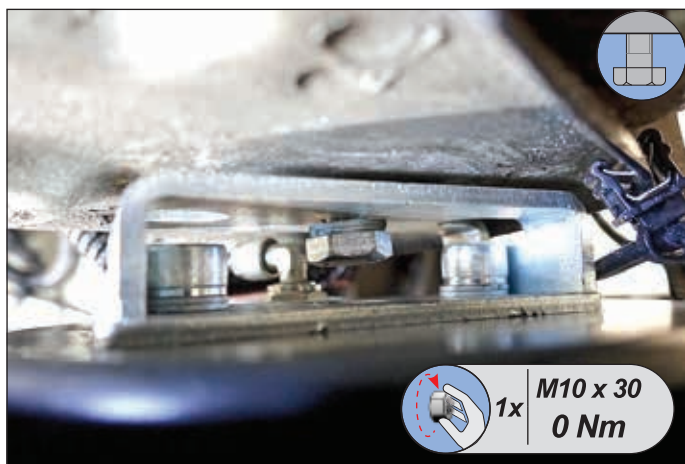
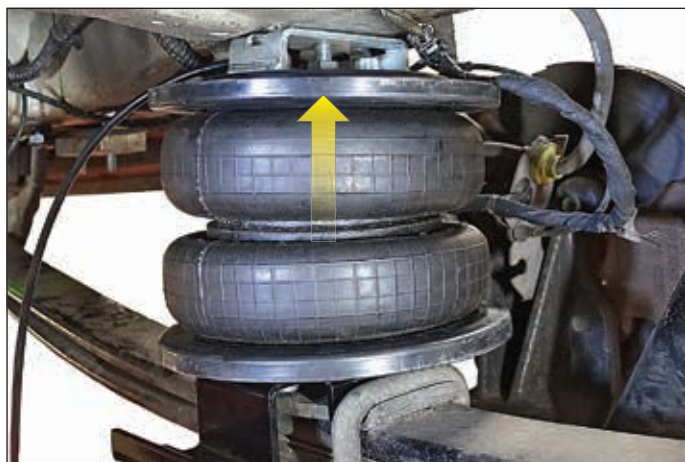
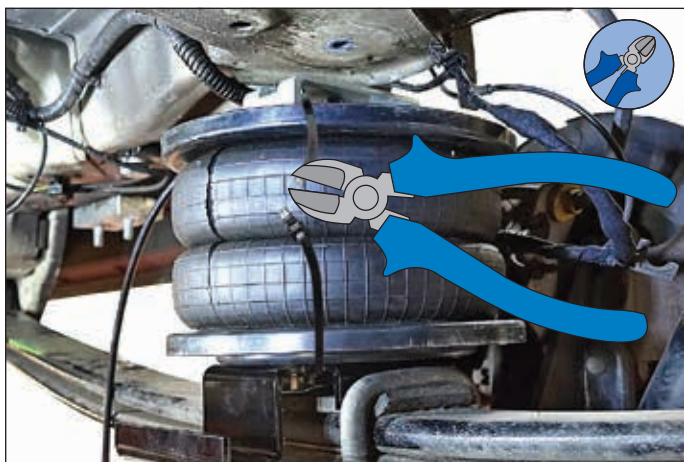
**Wrap the air tube around the air spring.
If necessary, secure the air tube in place
with some adhesive tape.**

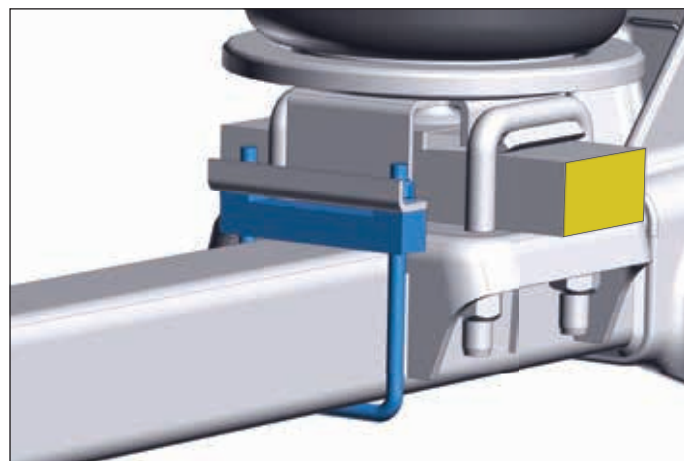
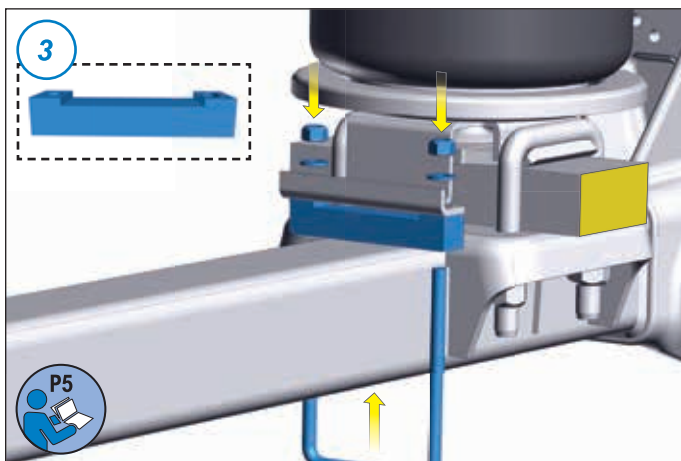





7. Cut off the tie-wraps so that the air spring takes up its position.
8. Screw the air spring onto the chassis in the place where the bump stop previously sat.
9. Fit the lower bellow supports.







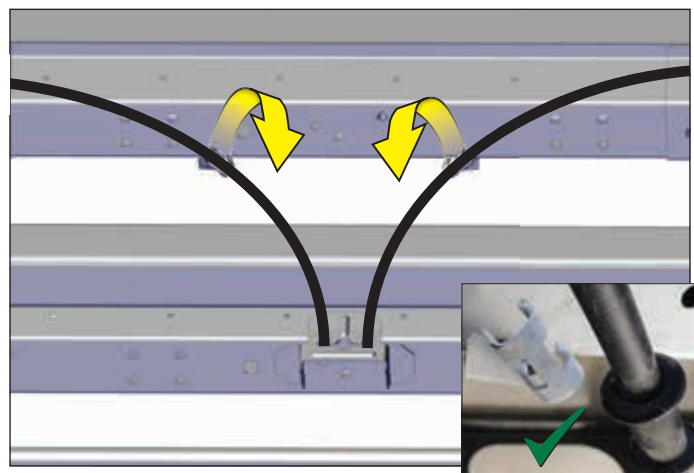
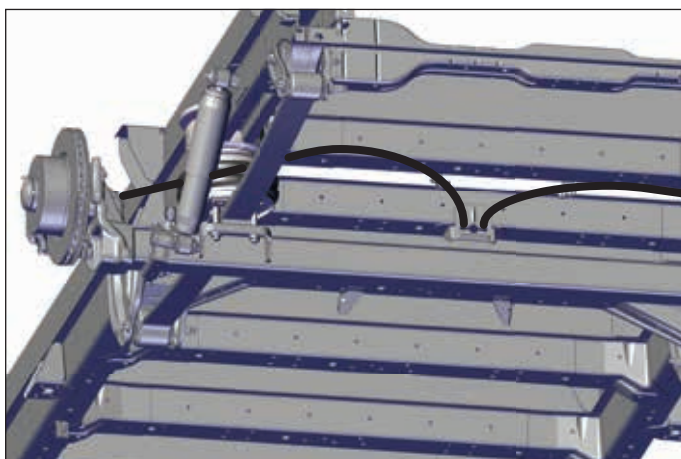
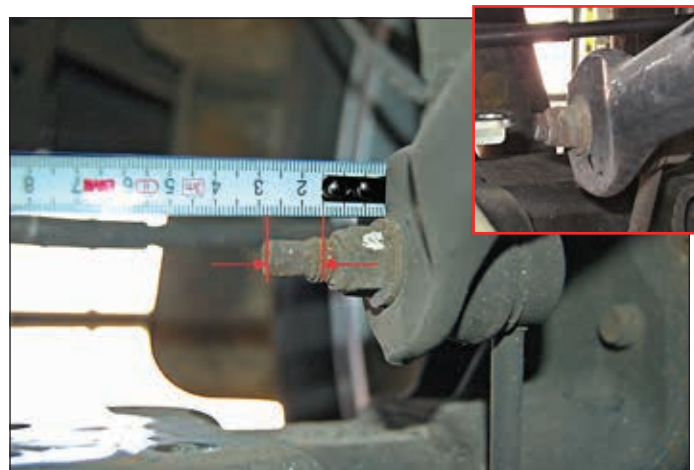
2 x U-bolt	M8
4 x lock nut	M8
4 x washer	M8
	8 Nm

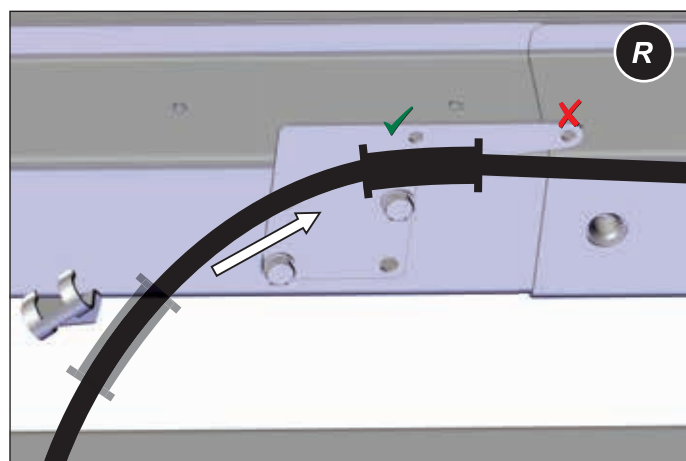
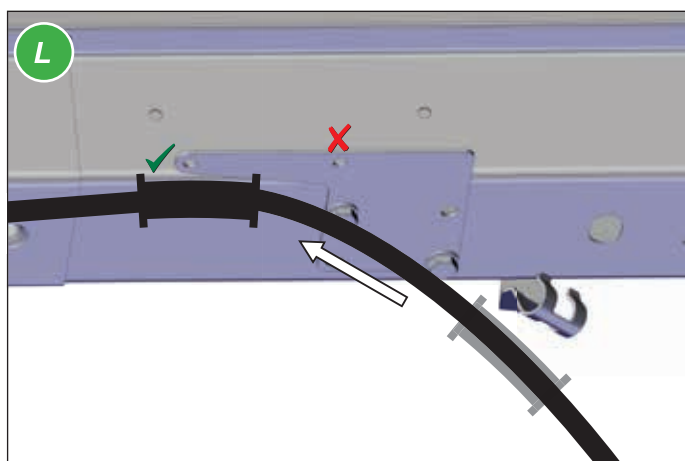
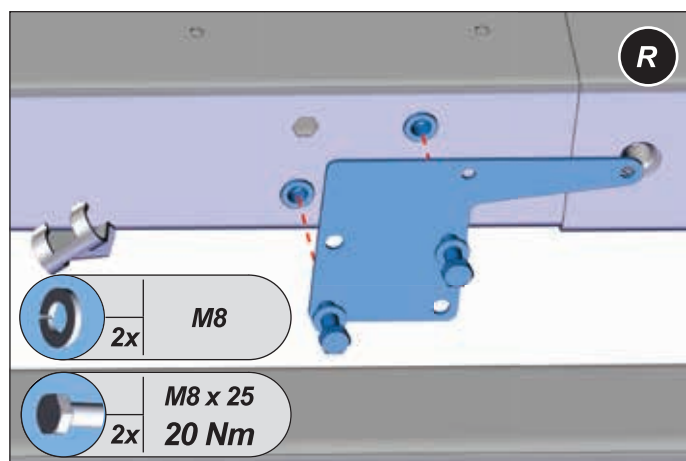
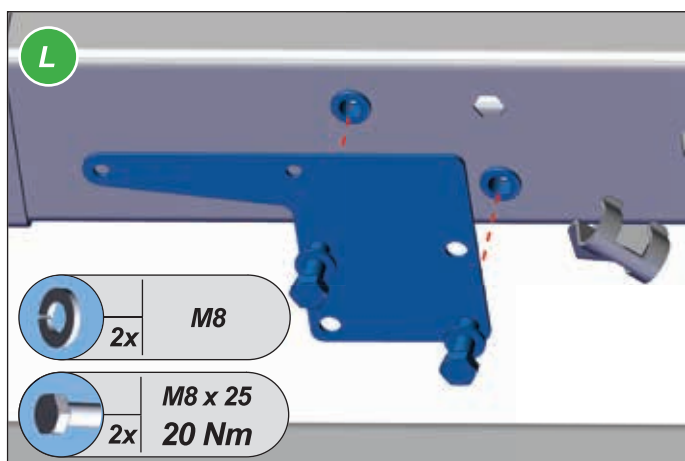


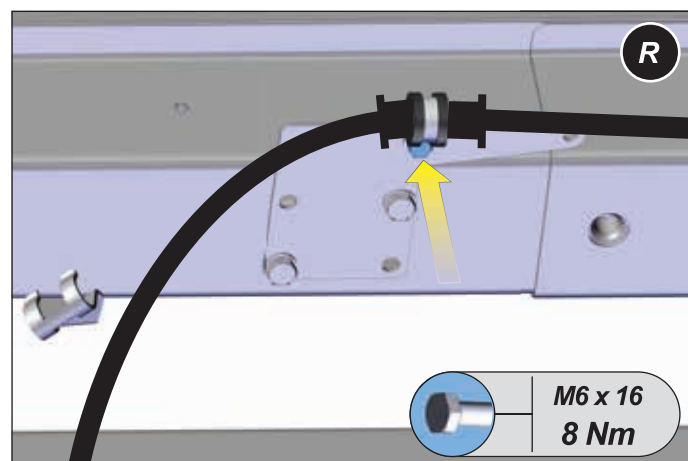
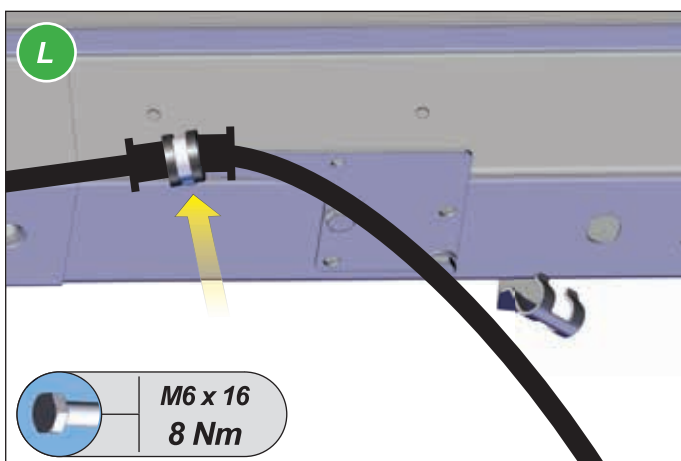
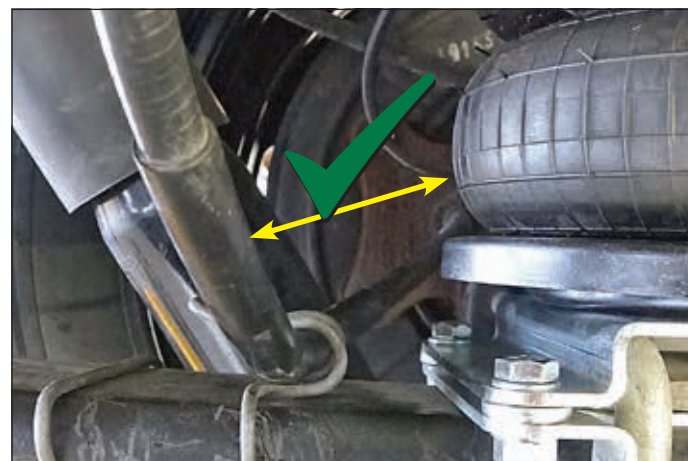
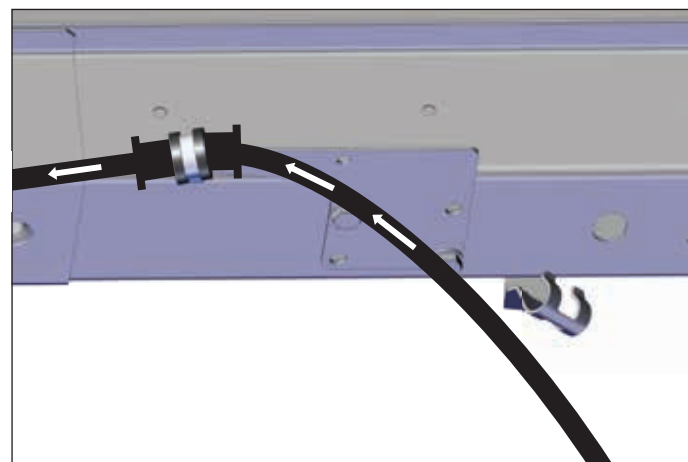
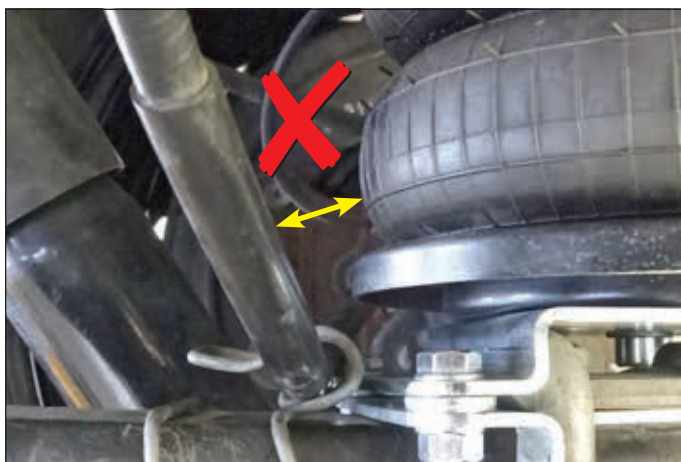
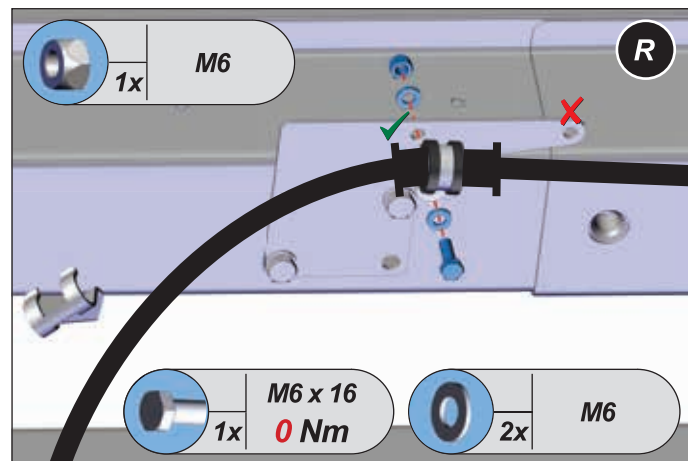
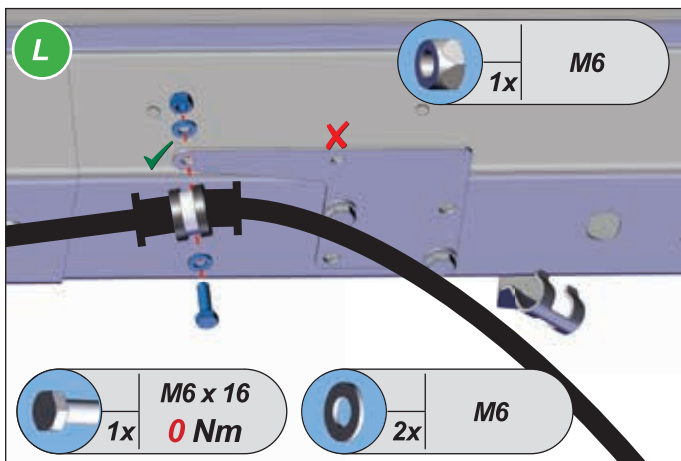
10. Tighten the bolt at the top of the air spring.

1 x bolt	M10
	40 Nm

11. If the vehicle has a stabiliser arm, cut off a section (± 1.5 cm) of the bolt used to secure the torque arm.









If you are also fitting the comfort kit, follow the fitting instructions in the next section.

12. Fit the inflation valves in the position agreed with the customer.
13. Route the air tubes to the inflation valves.
14. Connect the air tubes to the air springs.
15. Secure the air tubes under the vehicle using tie-wraps.
16. Check the system for air tightness.
17. Affix the bellows pressure sticker close to the inflation valves.



8. FITTING THE COMPRESSOR



Install the compressor in the vehicle at all times.



If a comfort kit is fitted, the inflation valves from the basic kit are not needed. In this case, the inflation valves must NOT be fitted.

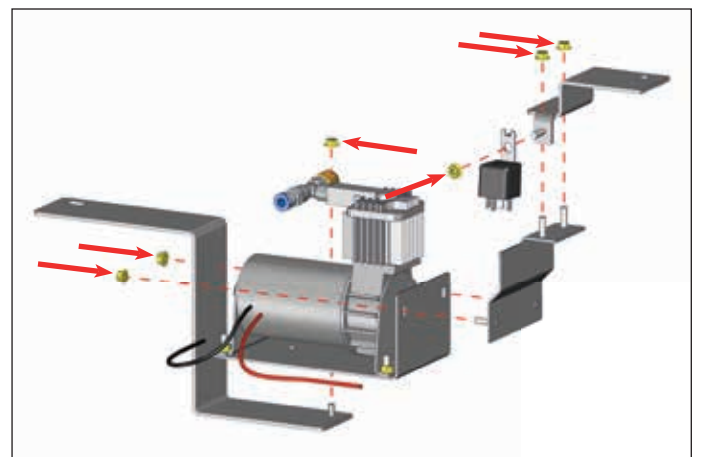
1. Route the green and black air tubes to the fuel tank filling neck.
2. Take the seat cover off the driver's seat (if fitted).
3. Remove the driver's seat.
4. Remove the entry trim.
5. Remove the cover of the B-pillar.



An alternative route to the inside of the cab for the air tubes is via the battery housing. For this purpose, drill a hole in the battery housing.



6. Route the air tubes to the inside of the cab.
7. Assemble the compressor as shown.



4 x flange nut

M5



5 Nm

8. Fit the compressor.

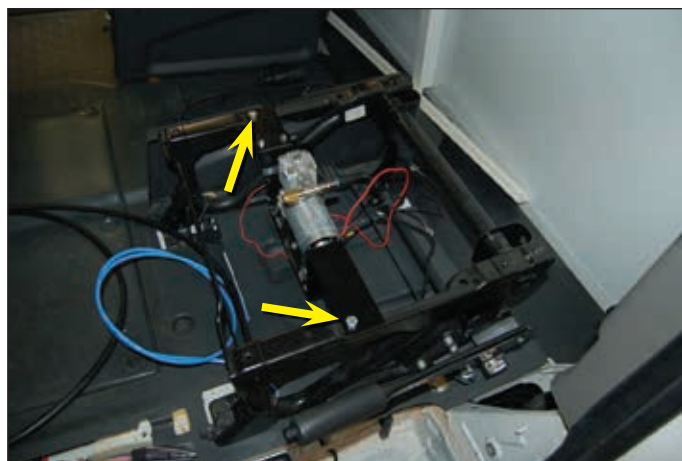
2 x bolt	M8 x 16
2 x lock nut	M8
2 x washer	M8



21 Nm



Do not fit a washer between the bolt head and the seat frame.



9. Connect the supply cable to the compressor.
10. Take the cover plate off the battery housing.
11. Route the compressor supply cable to the battery.



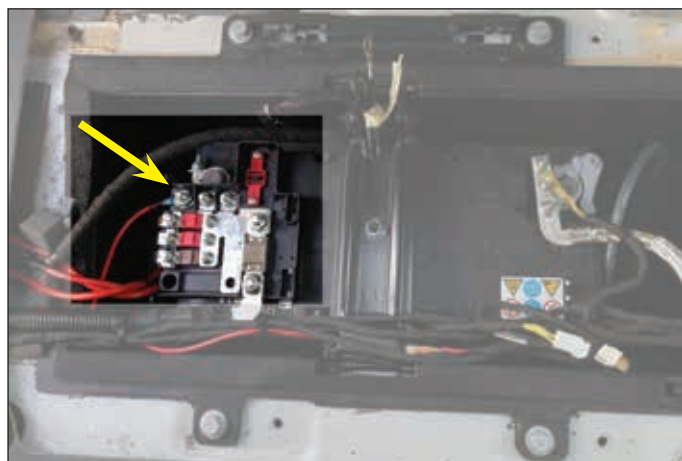
See Section 14 for an alternative mounting location for the compressor.



12. Connect the red wire to the connection marked on the positive battery terminal. (+).



If there are 2 batteries, always use the original starter battery and not the accessories battery.



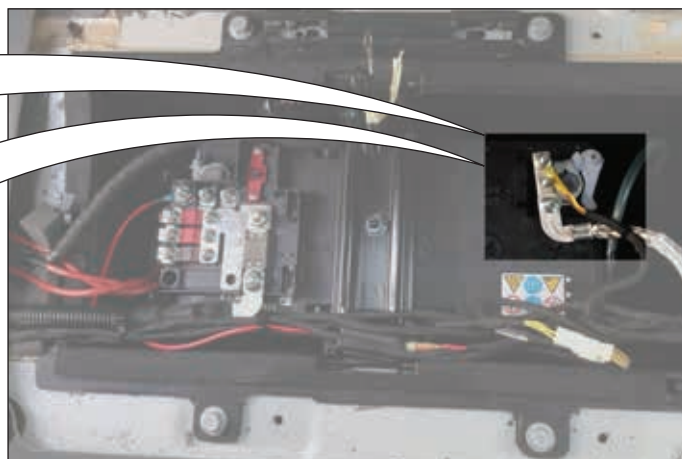
13. Connect the yellow and brown wires to the negative battery terminal (-)

With Relais:

+ 8 mm



Without relais:





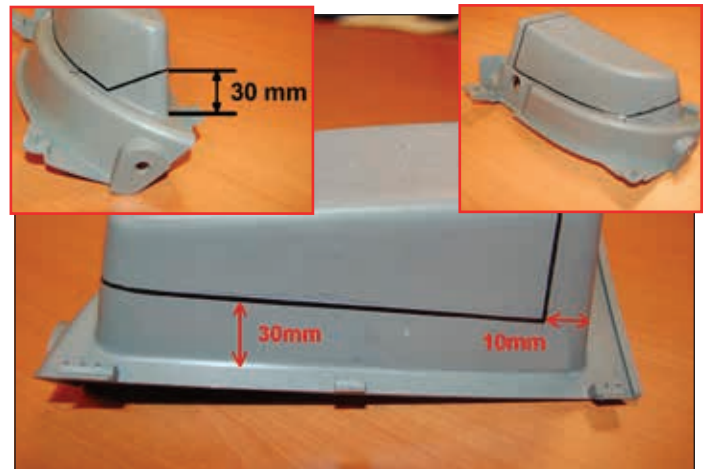
A 9. FITTING THE CONTROL PANEL (MOTORHOME COMFORT KIT)



*If a comfort kit is fitted, the inflation valves from the basic kit are not needed.
In this case, the inflation valves must NOT be fitted.*



1. Take the cover off the fuse box.
2. Remove the dashboard casing.
3. Cut the casing to size according to the indicated dimensions.
4. Mark the two holes on the inside of the casing.
5. Drill two fixing holes (Ø4.5 mm) from the inside out.



6. Fit the plate nuts to the control panel.



2 x plate nut

7. Push the air tubes and the wires through the casing.
8. Fit the control panel to the dashboard casing.
9. Push the air tubes and the wires through the dashboard above the fuse box.



2 x plate screw

3.9 x 13

10. Route the air tubes and wires to the running board.
11. Fit the dashboard casing (incl. the control panel).



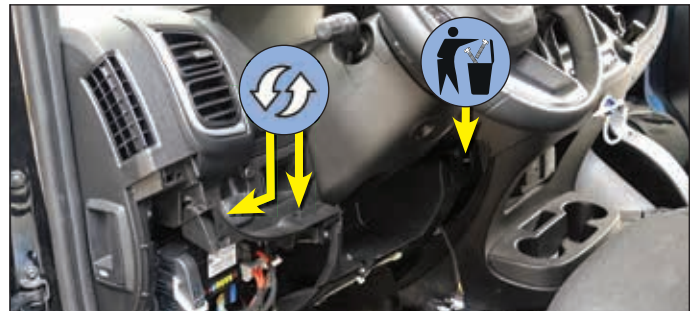
B 10. FITTING THE CONTROL PANEL (MOTORHOME COMFORT KIT)

FIAT DUCATO X290 >2021 WITH ELECTRIC HANDBRAKE.



If a comfort kit is fitted, the inflation valves from the basic kit are not needed. In this case, the inflation valves must NOT be fitted.

1. Remove the dashboard casing.



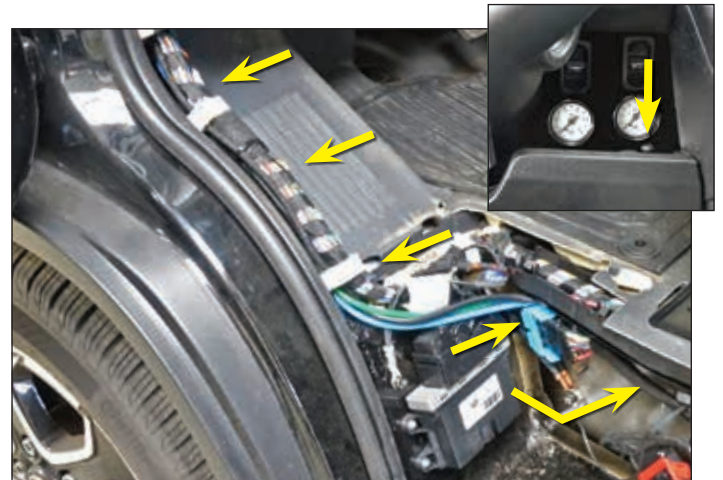
2. Feed the air tubes and the wires through the dashboard.



3. Feed the air tubes and the wires through the dashboard above the fuse box.



4. Route the air tubes and wires to the running board.
5. Fit the dashboard casing and the control panel.



2 x plate screw Ø4,8 x 30



1 x plate screw Ø4,8 x 38



C 11. FITTING THE CONTROL PANEL (LCV COMFORT KIT)



If a comfort kit is fitted, the inflation valves from the basic kit are not needed. In this case, the inflation valves must NOT be fitted.



On certain models the seats have a plastic seat cover. If the vehicle has seat covers, the seat cover on the driver's seat needs to be modified. A template is provided in this manual to help you carry out this modification (creating a hole in the cover). If the vehicle does not have seat covers, continue from step 4.

1. Using the template (last page of this manual) cut a hole in the seat cover.
2. Push the air tubes through the hole in the seat cover.

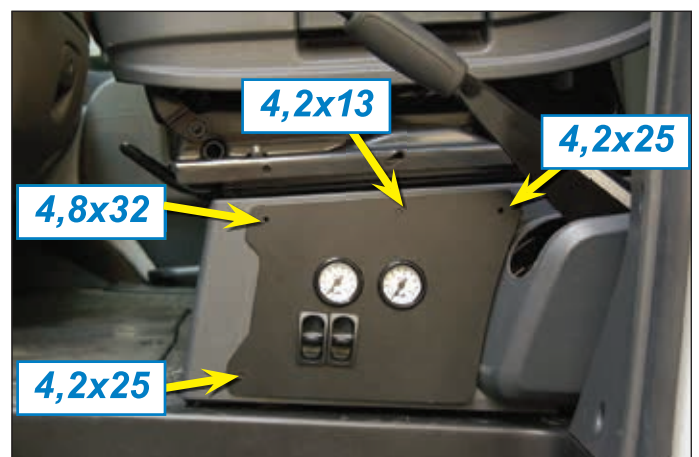


3. Fit the seat cover and the control panel. Use the holes indicated for this purpose. Screw the plate screw (4.2x13) into the seat cover only.

1 x plate screw 4.8 x 32

2 x plate screw 4.2 x 25

1 x plate screw 4.2 x 13



4. If the vehicle does not have seat covers, fit the control panel to the seat frame. Use the holes indicated for this purpose. Use the wing nut (F) to tighten the plate screw.

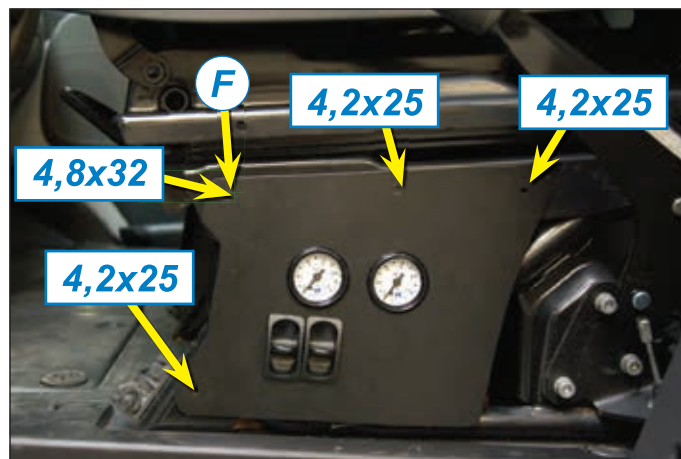
1 x plate screw	4.8 x 32
3 x plate screw	4.2 x 25
1 x wing nut	M5



If the holes in the seat frame do not match, make a hole with an awl or drill into which to screw the plate screw.

12. CONNECTING THE CONTROL PANEL

1. Connect the blue air tube to the compressor.
2. Connect the control panel connector to the supply cable connector.
3. Using the couplings, attach the green and black air tubes from the air springs to the air tubes with the corresponding colour on the control panel.



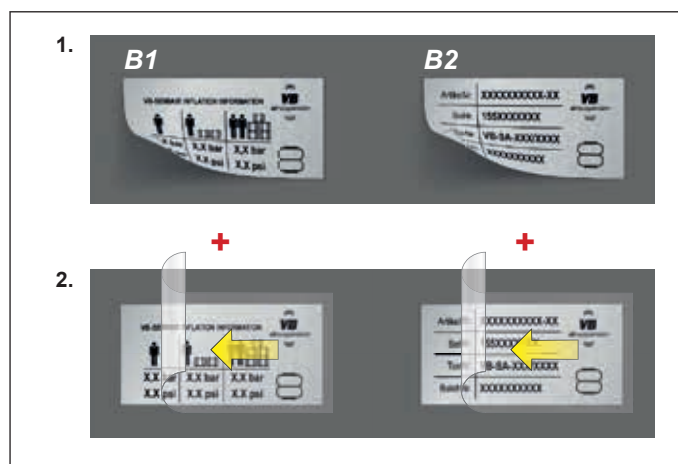
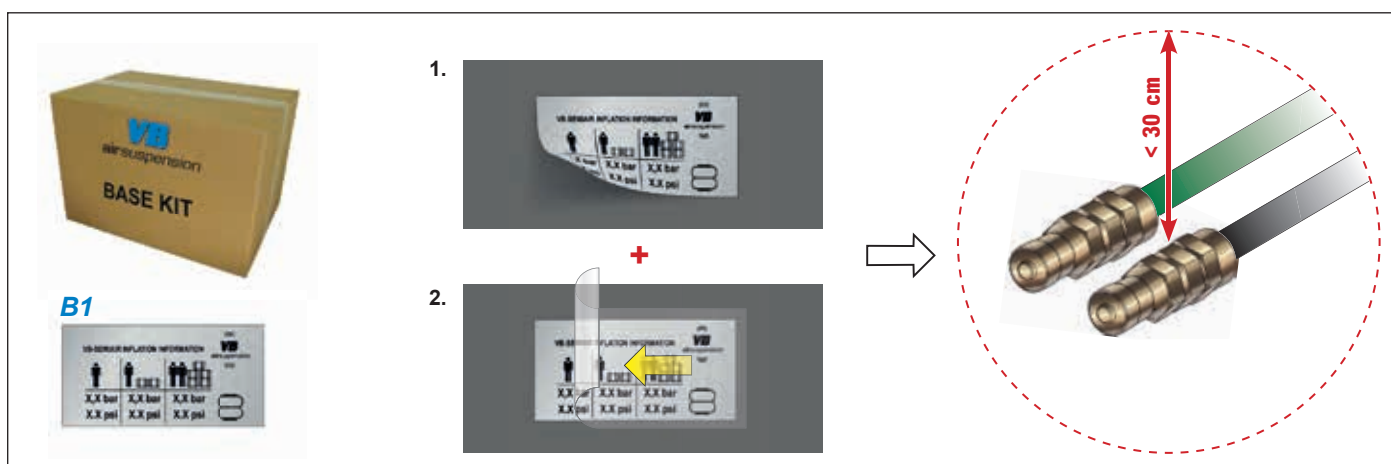
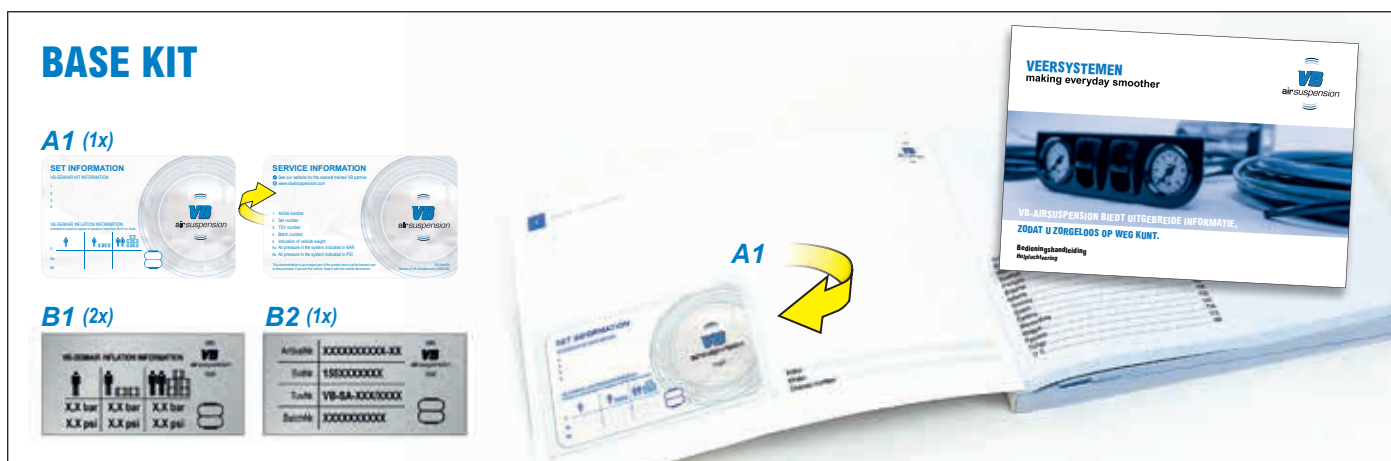
The position shown in the photograph is only suitable if the control panel is fitted in the dashboard.



2 x air coupling	Ø6 x Ø6
-------------------------	----------------

4. Fit the fuse.
5. Check the system for function.
6. Check the system for air tightness.
7. Secure the air tubes under the vehicle using tie-wraps.
8. Refit all removed parts.
9. Affix the bellows pressure sticker close to the control panel.
10. Affix the "Fuse near battery" sticker to or in the vicinity of the fuse box.

13. APPLY THE BELLOW PRESSURE STICKERS



COMFORT KIT

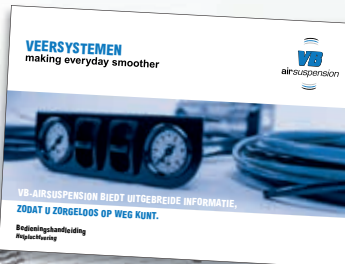
A1 (1x)



B1 (2x)



B2 (1x)



B1



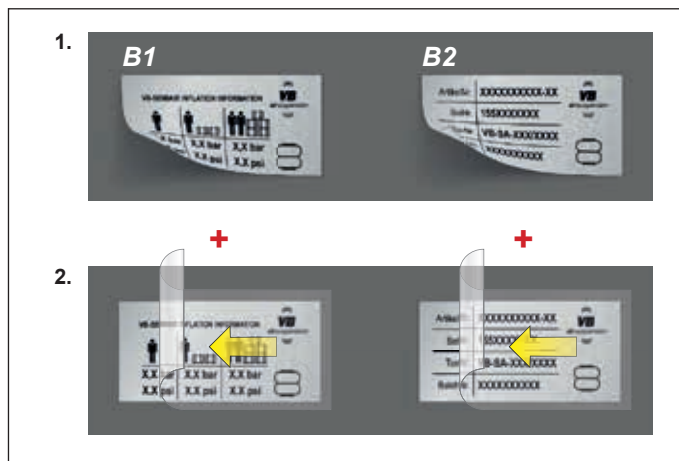
C1



B1



2.

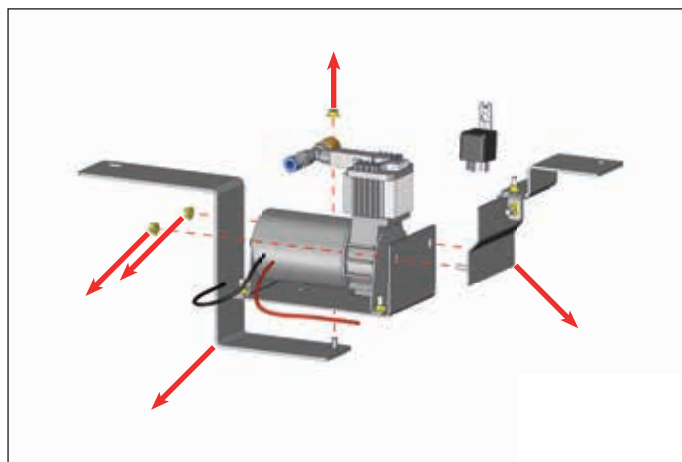


14. ALTERNATIVE COMPRESSOR LOCATION

1. Rotate the air coupling.



2. Remove the brackets.

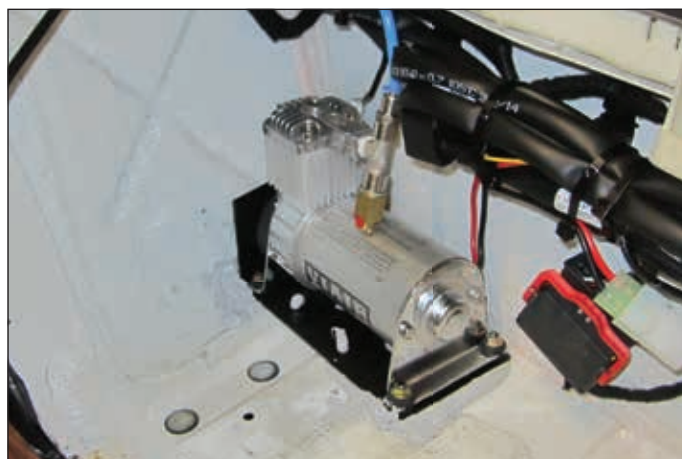


3. Apply adhesive (VB item number 5400700003) to the bracket as shown.



Thoroughly clean and remove any grease from the surface before applying the adhesive.

4. Apply adhesive in the area where the compressor will be fitted.
5. Place the compressor on the running board. The adhesive must be allowed to harden for at least 5 hours.



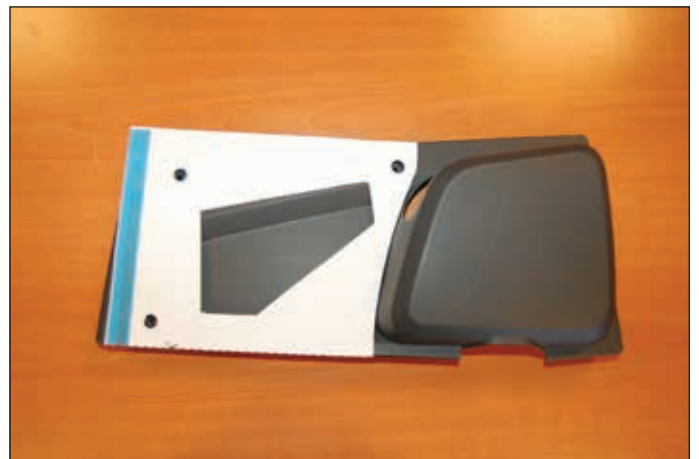
Thoroughly clean and remove any grease from the surface before applying the adhesive.

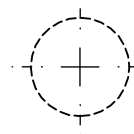
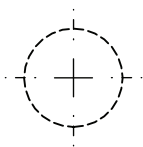
Continue installation as described in Section 8.

15. TEMPLATE



1. Line up the holes with the mounting holes.





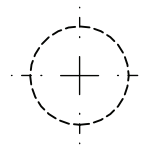
Verwijder dit deel
Entfernen Sie diesen Bereich
Remove this part
Supprimer cette partie

Verwijder dit deel
Entfernen Sie diesen Bereich
Remove this part
Supprimer cette partie



Verwijder dit deel
Entfernen Sie diesen Bereich
Remove this part
Supprimer cette partie

Verwijder dit deel
Entfernen Sie diesen Bereich
Remove this part
Supprimer cette partie

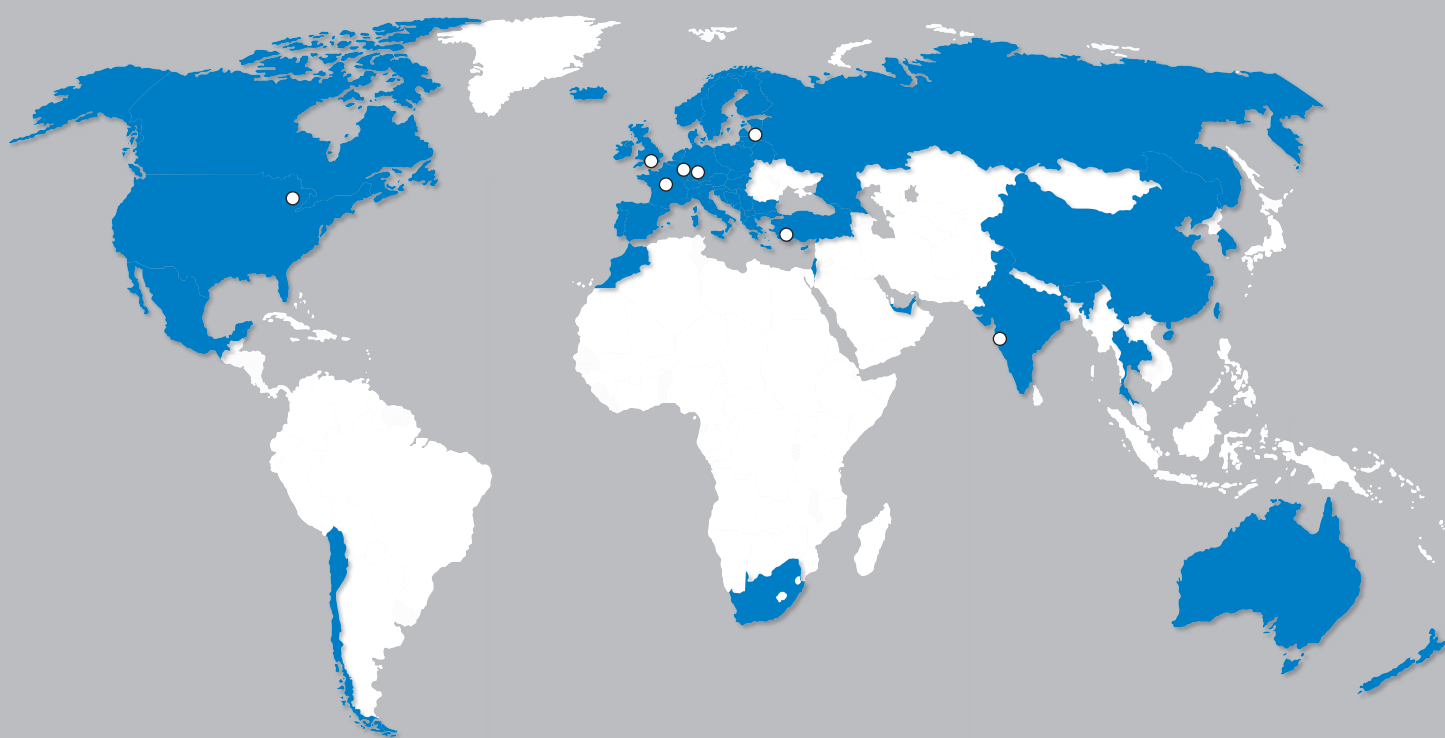


16. NOTES

Lined area for notes.

Lined area for writing or drawing.

Lined area for writing or drawing.



VB-AIRSUSPENSION,

INCREASED COMFORT, BETTER DRIVEABILITY, MORE SAFETY.



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