

**Warning!**

Risk of injury!

Drain the air spring system before carrying out any work on the air supply unit, air pipes and air springs! Danger of injury if this instruction is not complied with!

Risk of damage!

The vehicle must not stand on its wheels when the air springs are depressurized! Otherwise the air spring struts will be damaged and later destroyed during driving!

Extreme cleanliness must be ensured in the connection area of the pipes during removal and installation. Even the smallest of dirt particles can cause leakage in the air spring system.

**Important!**

To prevent premature failure of the air supply unit, it is essential to replace the air supply unit relay as well!

*Note:*

Read and comply with notes on air spring system.

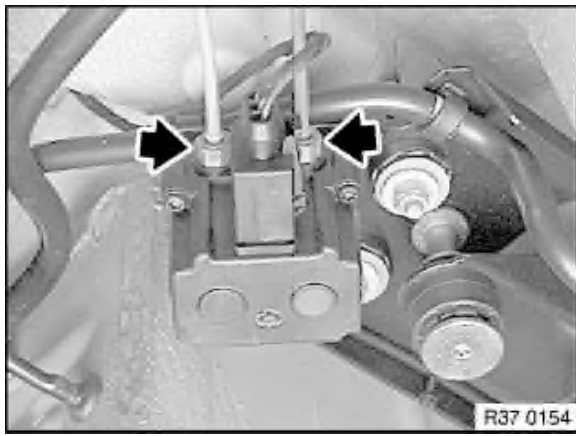


*Necessary preliminary tasks:*

- Remove battery compartment cover from floor plate.
- Deactivate and drain air spring system

**Important!**

Do not kink, twist or crush lines.



Disconnect plug connection.

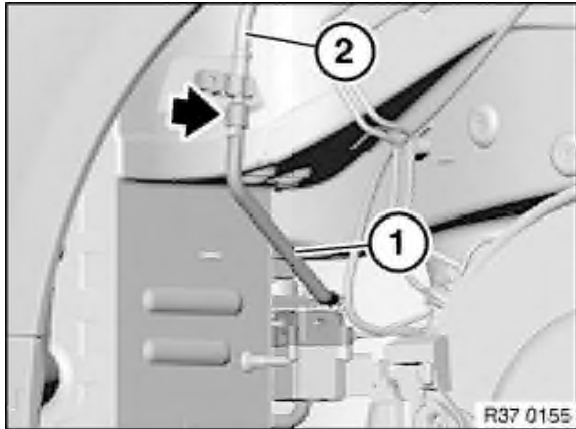
Release banjo bolts.

Tightening torque 37 12 3AZ .

Lay pipes to one side and seal off with adhesive tape.

*Installation:*

Check banjo bolts for dirt, clean if necessary. Then carefully screw in banjo bolts by hand to avoid damaging the plastic threads and with it the air supply unit.



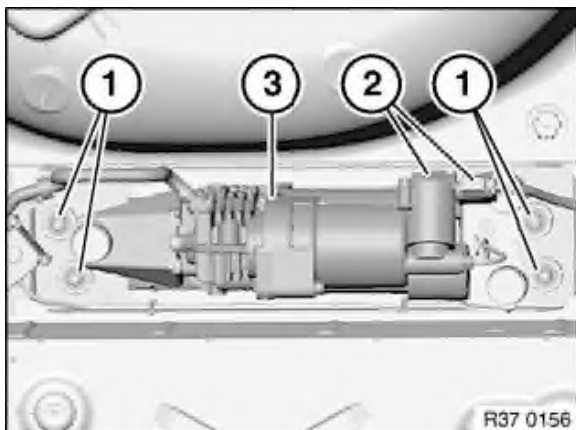
**Important!**

To prevent premature failure of the air supply unit due to the ingress of dirt particles and moisture, it is essential to replace the feed line (becomes porous) as well!

Partially remove rear right wheel arch cover.

Disconnect feed line (1) of air supply unit from vent line (2).

Seal off feed line (1) of air supply unit and vent line (2) with adhesive tape.

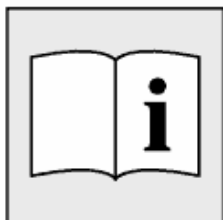


Disconnect plug connections (2).

Unscrew nuts (1).

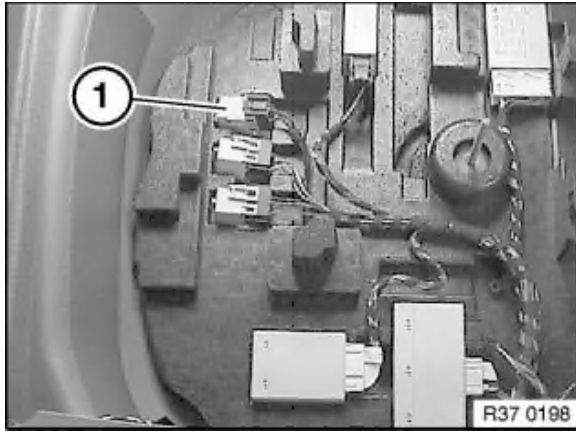
Tightening torque 37 22 1AZ .

Remove air supply unit (3).

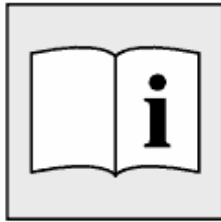


**After installation:**

- Activate and fill air suspension system



Remove ignition key.  
Remove spare wheel.  
Remove upper section of unit mounting.  
Detach relay (1) from relay carrier.

**After installation:**

- Clear fault memory

**Components / pipes****Important!**

Maintain the highest possible standards of cleanliness around the pipe connections when dismantling and assembling components/pipes. Even the tiniest dirt particles on the pipe connections or damage to the pipes can result in leaks in the air spring system!

Do not kink, twist or crush lines.

Pipe connections must be sealed off with adhesive tape immediately after they have been removed. The adhesive tape may only be removed shortly before the connection is reinstalled.

**Air spring strut / air spring:***Note:*

If a vehicle has been driven with a depressurized air spring strut/air spring, the air spring strut/air spring must always be replaced.

Check air spring strut/air spring for damage.

**Warning!**

Danger of injury!

Drain the air spring system before carrying out any work on the air supply unit, air pipes and air springs! Danger of injury if this instruction is not complied with!

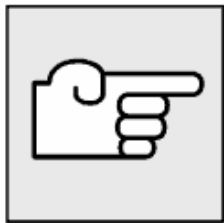
Risk of damage!

The vehicle must not stand on its wheels when the air springs are depressurized! Otherwise the air spring struts will be damaged and later destroyed during driving!

Extreme cleanliness must be ensured in the connection area of the pipes during removal and installation. Even the smallest of dirt particles can cause leakage in the air spring system.

*Note:*

Read and comply with notes on air spring system.

**Deactivating air spring system:**

- Raise vehicle on lifting platform.
- Remove ignition key.
- Pull fuse for control unit

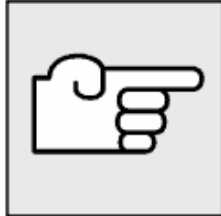
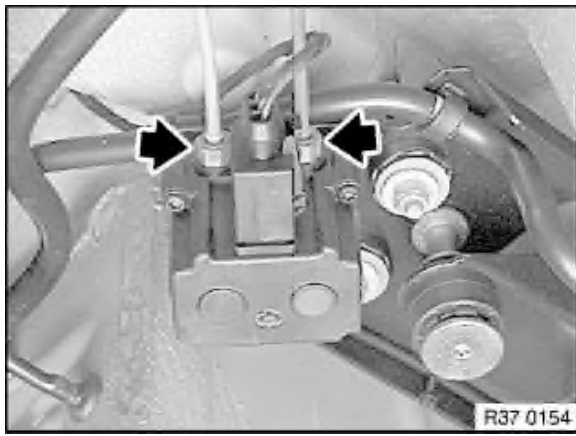
**Draining air spring system:**

- Remove battery compartment cover from floor plate.

**Important!**

Do not kink, twist or crush lines.

To avoid incorrect activation of the air springs, do not mix up the pipes at the air supply unit connection!



- Carefully slacken banjo bolt(s) until the sound of escaping air can be heard

Note: Wait roughly 2 minutes until the pressure on the left side and/or right side of the air spring system is completely reduced (hissing sound stops).

Line, air spring, left: "Red"

Line, air spring, right: "Blue"

- Only fully release banjo bolt(s) after pressure has completely reduced

#### *Installation:*

- Check banjo bolt(s) for dirt, clean if necessary.
- Carefully screw in banjo bolt(s) by hand to avoid damaging the plastic thread and with it the air supply unit.

Tightening torque 37 12 3AZ .



#### **Activating and filling air spring system:**

- Insert fuse in corresponding slot in fuse box
- Connect BMW diagnosis system
- Switch ignition on
- Fill rear left or right air spring using the BMW diagnosis system (control unit functions -> component activation: activate menu items "Fill rear left/right air spring" once)
- Check pressure at the air springs.

Note: If an air spring feels soft, carry out troubleshooting on the air supply unit.

- Lower vehicle.
- Reinstall removed parts



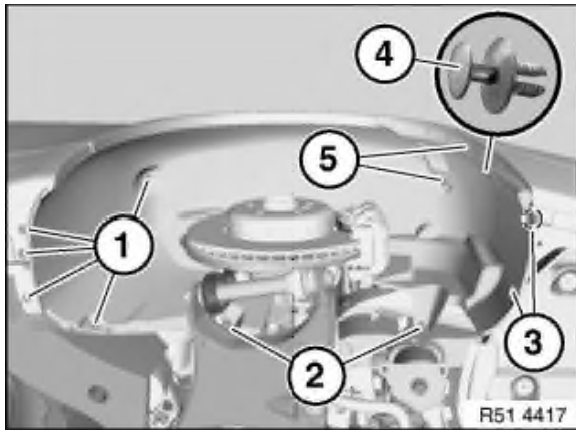
*Necessary preliminary tasks:*

- Remove rear wheel
- If necessary, disconnect and feed out plug connection on brake pad sensor

*Note:*

The operation is described on the left side; proceed in the same way for the right side.

Illustration created using E60 as an example. There may be differences in detail in the case of other vehicle models.



Release screws (1, 3 and 5).

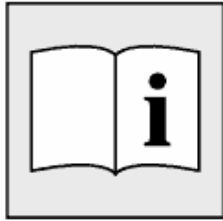
Unscrew nuts (2).

Release expansion rivet (4).

Carefully feed out rear wheel arch cover towards bottom.

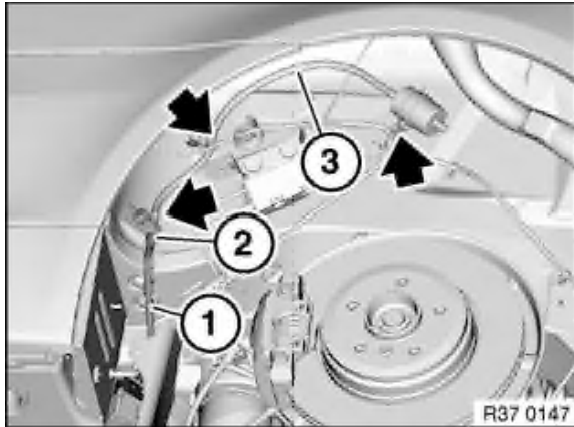
*Installation:*

Make sure rear wheel arch cover is correctly seated.



*Necessary preliminary tasks:*

- Remove rear right wheel arch cover



Detach cable tie.

Disconnect quick-release fastener (2) of vent line (3) from feed line (1) of air supply unit.

Unclip and remove vent line (3).



## 1. Height setting not OK

Fault	Cause	Remedy
Vehicle too low on one side or both sides after being stationary but rises to correct height when vehicle is started	<ul style="list-style-type: none"> <li>a) Stationary for too long</li> <li>b) Large temperature drop while vehicle stationary</li> <li>c) Pipes/screw connections leaking</li> <li>d) Air supply unit defective</li> <li>e) Air springs defective</li> </ul>	<ul style="list-style-type: none"> <li>a) No fault (system-related)</li> <li>b) No fault (system-related)</li> <li>c) Check pipes incl. screw connections (first in easily accessible area), then at air spring with leak tester spray, replace pipes if necessary</li> <li>d) Carry out diagnosis brief test and work through stored faults</li> <li>e) Carry out diagnosis brief test and work through stored faults</li> </ul>
* Vehicle is too high at one side (control not cutting in)	<ul style="list-style-type: none"> <li>a) Pipes mixed up</li> <li>b) Pipe/screw connections leaking or clogged</li> <li>c) Air supply unit defective</li> <li>d) Ride-height sensor mechanically defective (bracket, control rod bent)</li> </ul>	<ul style="list-style-type: none"> <li>a) Connect pipes correctly</li> <li>b and c) Carry out diagnosis brief test and work through stored faults</li> <li>d) Check ride-height sensor, bracket, control rod, replace if necessary</li> </ul>
* Both sides of vehicle always too low. If the vehicle has been driven in this condition, refer to 37 00 ... Notes on air springs.	<ul style="list-style-type: none"> <li>a) Vehicle is overloaded</li> <li>b) Fuse blown</li> <li>c) Control unit for air supply unit defective</li> <li>d) Pipes/screw connections leaking or defective</li> <li>e) Air supply unit defective</li> <li>f) Air springs defective</li> <li>g) Ride-height sensors mechanically defective (bracket, control rod bent)</li> </ul>	<ul style="list-style-type: none"> <li>a) Partially unload vehicle</li> <li>b) Replace failsafe</li> <li>c - g) Carry out diagnosis brief test and work through stored faults</li> </ul>

\* Vehicle does not rise in response to loads.

- a) Vehicle is overloaded
- b) Fuse blown
- c) Control unit for air supply unit defective
- d) Pipes/screw connections leaking or clogged
- e) Air supply unit defective

	<ul style="list-style-type: none"> <li>f) Air springs defective</li> <li>g) Ride-height sensors mechanically defective (bracket, control rod bent)</li> </ul>	<ul style="list-style-type: none"> <li>a) Partially unload vehicle</li> <li>b) Replace failsafe</li> <li>c - g) Carry out diagnosis brief test and work through stored faults</li> </ul>
* One side of vehicle too low. If the vehicle has been driven in this condition, refer to 37 00 ... Notes on air springs.	<ul style="list-style-type: none"> <li>a) Pipe/screw connections leaking or clogged</li> <li>b) Air supply unit defective</li> <li>c) Air spring defective</li> <li>d) Ride-height sensor mechanically defective (bracket, control rod bent)</li> </ul>	a - d) Carry out diagnosis brief test and work through stored faults
Vehicle only rises on one side in response to load. If the vehicle has been driven in this condition, refer to 37 00 ... Notes on air springs.	<ul style="list-style-type: none"> <li>a) Vehicle overloaded on one side</li> <li>b) Pipe/screw connections leaking or clogged</li> <li>c) Air supply unit defective</li> <li>d) Air spring defective</li> <li>e) Ride-height sensor mechanically defective (bracket, control rod bent)</li> </ul>	a - e) Carry out diagnosis brief test and work through stored faults
Both sides of vehicle too high (does not lower in response to control).	<ul style="list-style-type: none"> <li>a) Transport mode set</li> <li>b) Pipes clogged</li> <li>c) Air supply unit defective</li> </ul>	<ul style="list-style-type: none"> <li>a) Delete transport mode using BMW diagnosis system</li> <li>b - c) Carry out diagnosis brief test and work through stored faults</li> </ul>

## 2. Control times not OK

Fault	Cause	Remedy
Vehicle rises too slowly.	<ul style="list-style-type: none"> <li>a) Vehicle is overloaded</li> <li>b) Battery voltage too low</li> <li>c) Pipes/screw connections leaking or clogged</li> <li>d) Air supply unit defective</li> </ul>	<ul style="list-style-type: none"> <li>a) Partially unload vehicle</li> <li>b - d) Carry out diagnosis brief test and work through stored faults</li> </ul>
* Vehicle governs down too slowly.	<ul style="list-style-type: none"> <li>a) Pipe clogged</li> <li>b) Air supply unit defective</li> </ul>	a - b) Carry out diagnosis brief test and work through stored faults

		a) Check pipe incl. screw connections (first in easily accessible area), then at air spring with leak tester spray or detach pipe at air spring and air supply unit and blow through, replace pipe if necessary
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#### 4. Compressor

Fault	Cause	Remedy
* Compressor ran significantly longer than 2 minutes.	a) Air supply unit defective	a) Replace air supply unit
Compressor runs loudly	a) Air supply unit defective	a) Replacing air supply unit

#### 5. Warning lamp

Warning lamp on, level control inactive, no fault memory entry in DIS Tester	Protective cutout of compressor after frequent continuous control	Allow compressor to cool down, turn ignition off and then on again