

DRIVE▶RITE

AIR SUSPENSION SYSTEMS

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DR.01.014250

W23-760-4250

89mm (4.75") x 267mm (9") Air Spring

COIL-SPRUNG SEMI-AIR KIT
FOR THE X83

INSTALLATION INSTRUCTIONS



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Introduction

The purpose of this publication is to assist with the installation of the Drive-Rite Coil-Sprung Kit.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information here includes a hardware list and step-by-step installation information.

Drive-Rite reserves the right to make changes and improvements to its products and publications at any time. Contact Drive-Rite at +353 1 8612 632 or visit us online at www.driveriteair.com for the latest version of this manual.

IMPORTANT SAFETY NOTICE

The installation of this kit does not alter the Gross Vehicle Weight Rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual and do not exceed the maximum load listed for your vehicle.

Gross Vehicle Weight Rating = the maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined, maximum allowable weight of cargo and passengers that the truck is designed to carry. Payload is GVWR minus the Base Curb Weight.

Precautions

Never exceed the maximum and minimum recommended pressure limits:

- Minimum Pressure 0.3 Bar (5 p.s.i)
- Maximum Pressure 2.5 Bar (35 p.s.i)

NEVER DRIVE WITH DEFLATED AIR SPRINGS

Special Instructions for Air Connections

- To cut the tubing correctly an appropriate cutter must be used (not scissors)



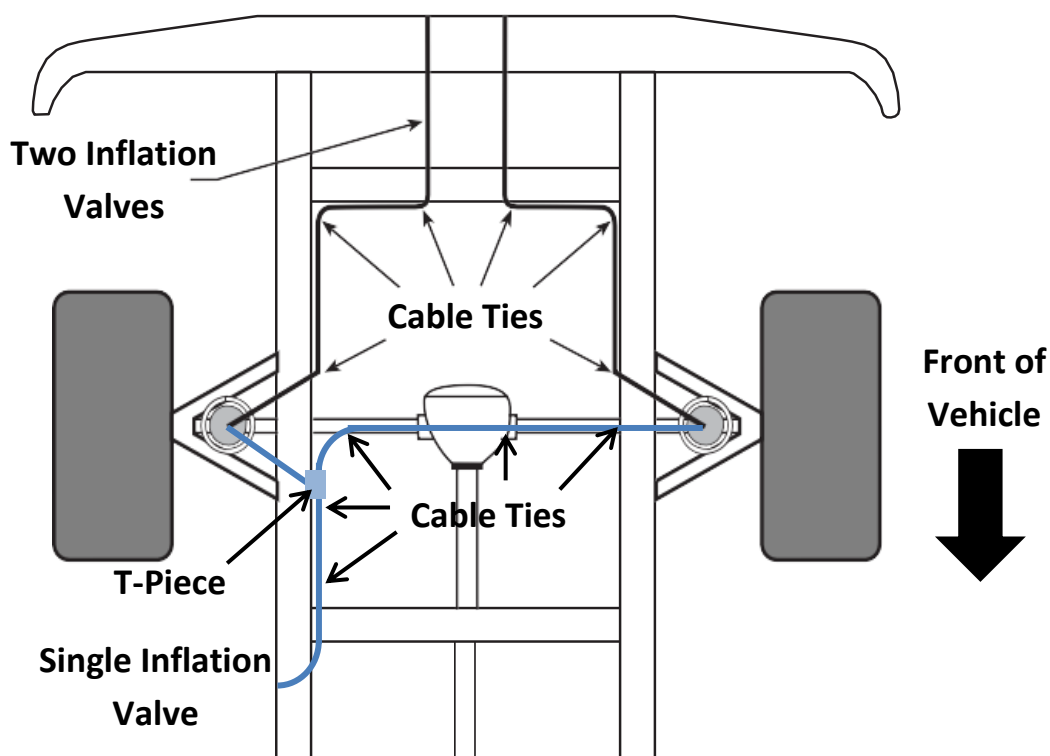
- When inserting the tubing into the connection, it must be pushed in approximately 14mm until a 'click' is heard.
- To remove the tube, you must push the flange in on the connection and at the same time pull the tube. (No tool is necessary.)
- **ATTENTION**, when a tube is removed it is important to trim 14mm from the end before reconnection.
- It is advisable that LOCTITE or similar sealant be used on the threaded fittings.

Kit Contents

▼ HARDWARE LIST

Description	Quantity
4.75" x 9" Air Spring	2
1/4" Tubing	5m (18 feet)
Cable Ties	6
3.75" x 0.5" Protectors	2
Blue Protective Sleeve	2
Inflation Valves	2
5/16" Flat Washer	2
Thermal Sleeves	2

▼ Air Line Route Schematic



Single Inflation Valve: _____

Two Inflation Valves: _____

Step by Step Installation

↘ Step 1: Prepare the Vehicle

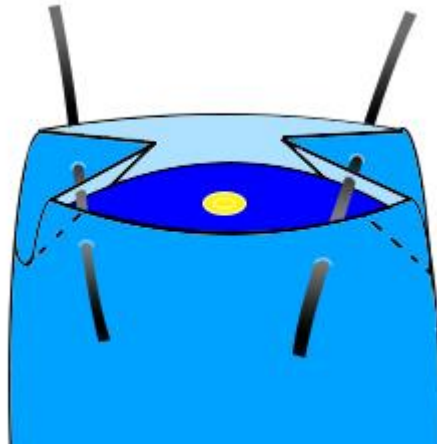
With the vehicle on a solid level surface, chock the rear wheels. Disconnect the negative battery cable. Raise the front wheels of the vehicle using a lift or platform jack rated for your vehicle's weight. Lower the vehicle frame onto jack stands rated for your vehicle's weight, allowing the suspension to hang freely. (DO NOT use wood or concrete blocks to support the weight of the vehicle.)

WARNING: Do not inflate this assembly when it is unrestricted. The assembly must be restricted by a coil spring. Do not inflate beyond recommended operating pressures. Improper use or over inflation may cause property damage or severe personal injury.

↘ Step 2: Prepare the Air Spring

Insert each air spring into the Blue Protective Sleeve. Fold the end as shown to keep the air spring in place.

Create small holes so that a cable tie can be tightly fixed through each side of the sleeve.



↘ Step 3: Install the Air Spring

Insert the air helper springs into the coil springs with the hole for the air tube at the bottom of the coil spring.

If needed, use a blunt tire iron or socket extension to push the air spring into place. Place one 3.75" x 0.5" Protector between the bottom of the air spring and the lower seat of the Coil Spring. The hole in the Protector will provide access to allow the airline to be installed.

If this method is difficult, you can use an alternate installation method and remove the Coil Spring first. Please see below.



Step 3: Install the Air Spring (Alternate Installation)

To allow for easier access when installing the air springs, remove the Coil Springs.

Loosen and remove the lower bolt on the shock absorbers.

Then lower the axle so that the Coil Spring can be easily removed.



Now the Air spring in the Sleeve can be placed into the Coil, with a Protective spacer being positioned at the bottom inside of the Coil Spring as before.



At this point it may be easier to install an air ling into the air spring before fitting the Coil Spring assembly into place. See tube lengths in Step 4.

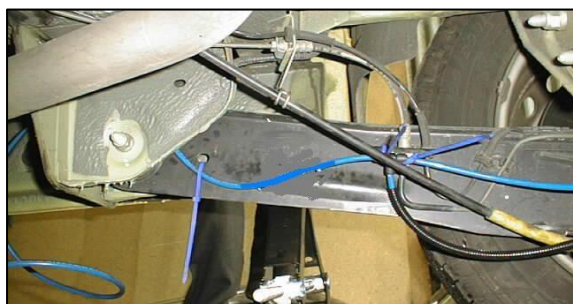
To re-install the Coil assembly, first feed the air line through the hole in the lower seat of the Coil Spring. Position the Coil assembly back into position.

Secure the Shock absorber back into position. **The shock absorber bolts can now be tightened to a torque of 165Nm.**

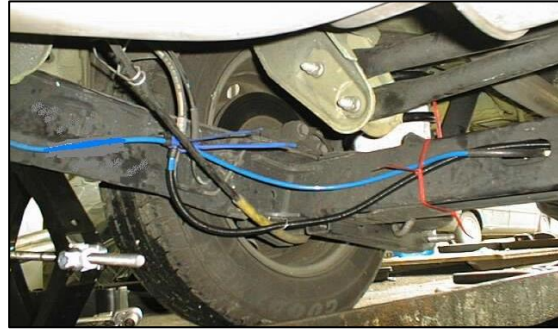


Step 4: Routing the Air Tubing

Cut two lengths of air line tubing; 170cm for the air spring on the Left hand side and 110cm for the air spring on the right. Feed the air lines through the holes in the axle for additional protection. Connect the air lines together with a T-Piece. *See page 4 for a schematic.*



Use the nylon ties provided to tie the tubing up into a safe position. The Thermal Sleeves should be used to protect the air lines from any sharp edges.

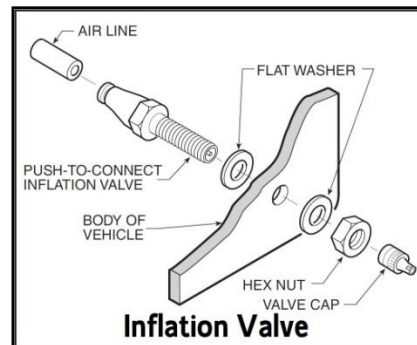


When cutting the air tube, it is vital that the tube is not cut at an angle. This could cause an air leak. It is recommended that a tube cutter or a sharp blade.



Drill an 8mm (5/16") hole and mount the inflation valve as shown in the diagram, pushing the valve through the hole from behind and attaching with 2 washers and a nut.

Cut the air tube to length, making sure the end is cut squarely, and push the end as far as possible into the back of the inflation valve. Feed this back to the T-Piece



Step 5: Completion and Testing

This now completes the installation. Jack the vehicle up and remove the jack stands. Reattach the negative battery cable. Remove the wheel chocks from the rear wheels.

Check the recommended inflation pressure and inflate the air springs to recommended maximum operating pressure (see page 1 for operating pressures). With a soap and water solution, check for air leaks around the fittings and valve core. We recommend inflating and deflating in 5 psi increments to find the ideal riding condition for your vehicle.

IMPORTANT:

- Attach all tubing securely to the underneath of the vehicle using nylon ties.
- Do not attach to brake lines.
- Protect the tube with the sleeves provided where there are any sharp edges or sources of heat.
- Ensure that the shock absorbers have been correctly torqued



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