

# **DRIVE▶RITE**

## **AIR SUSPENSION SYSTEMS**

Unit 626 Kilshane Avenue, North West Business Park, Ballycoolin, Dublin 15, Ireland

Telephone: +353 1 8612 632 Fax: +353 1 8612 647 email: [info@driveriteair.com](mailto:info@driveriteair.com)

Web: [www.driveriteair.com](http://www.driveriteair.com)

**DR.02.013004**

*W21-760-3004*

**MERCEDES SPRINTER**

**TYPE 207-310**

**YEAR: 1988-1996**

## **INSTALLATION INSTRUCTIONS**



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# Introduction

The purpose of this publication is to assist with the installation of the DR.02.013449 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.

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## 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                      1 Bar (14.5 p.s.i)
- Maximum Pressure                      7 Bar (100 p.s.i)

### **NEVER DRIVE WITH DEFLATED AIRSPRINGS**

## Special Instructions for Air Connections

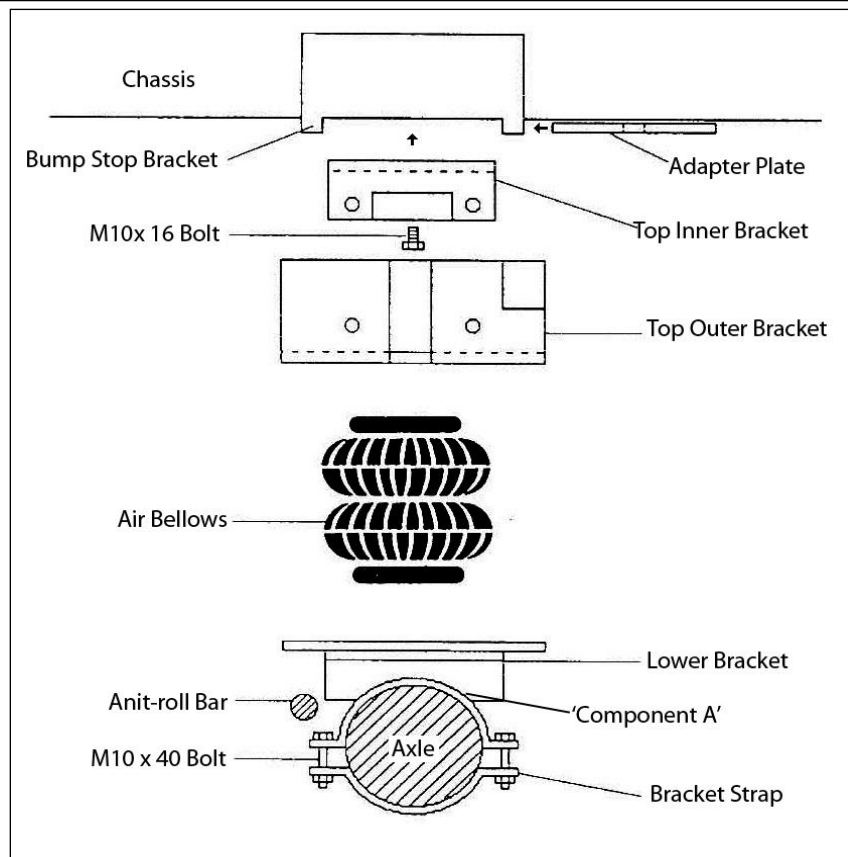
- To cut the tubing correctly an appropriate cutter must be used (not scissors)



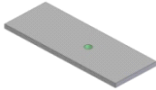
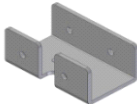

- When inserting the tubing into the connection, it must be pushed in approximately 14mm until a 'click' is heard.
- To remove the tube, you must push the flange in on the connection and at the same time pull the tube. (No tool is necessary.)
- **ATTENTION**, when a tube is removed it is important to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

# Kit Contents

## Diagrams



## HARDWARE LIST

Part Name	Quantity	Picture/Description	Part No.
Adaptor Plate	2		DRV-7145
Upper Inner Bracket	2		DRV-7146
Upper Outer Bracket (Side A)	1		DRV-7147
Upper Outer Bracket (Side B)	1		DRV-7151
Lower Bracket (Component A)	2		DRV-7150
Lower Bracket	2		DRV-7148
Bracket Strap	4		DRV-7149
3/8"-16 UNC Flange Lock Nut	4	Air Spring to Upper Bracket	3022
3/8"-16 UNC x 3/4" Bolt	2	Air Spring to Lower Bracket	3069
3/8" Lock Washer	6	Air Spring to Upper Bracket	0061
M10x1.5-16mm Hex Head Bolt	2	Upper Inner bracket to vehicle	
M8x1.5-90mm Hex Head Bolt	4	Upper Outer to Inner bracket	0156
M8 Hex Nut	4	for M8x90	3822
M8 Lock Washer	4	for M8x90	0011
M8 Countersunk Bolt	4	Component A to lower bracket	
M8 Lock Nut	4	M8 Countersunk Bolt	0033
M8 Flat Washer	4	M8 Countersunk Bolt	0007
M10x1.5-40mm Hex Head Bolt	8	Bracket strap to lower bracket	3810
M10 Hex Nut	8	for M10x40 bolt	
M10 Lock Washer	8	for M10x40 bolt	0069
255C 1.5" Air Spring	2		6781
1/4" Elbow	2		3031
1/4" Tee Piece	1		3025
1/4" Inflation Valve	2		3032
Cable Ties	15		9037
1/4" Tubing	5m	18 feet	1141-1M

# Step by Step Installation

## Step 1: Prepare the Vehicle

Your vehicle is equipped with a rubber bump stop which is positioned on the frame directly above the axle. Remove this bump stop and discard. Fit the Adaptor Plate in place of the bump stop, slightly bending the bump stop brackets to ensure a tight fit for the Adaptor Plate.

Bolt the Upper Inner Bracket to this Adaptor Plate using the M10x1.5-16 bolts. Make sure that the slot cut out of the top inner bracket is facing the inside of the chassis rail.

## Step 2: Install the Air fittings

Install the elbow in the air inlet hole on the top plate of the air springs. Tighten until the elbow is pointing towards the centre of the vehicle.

Next, cut the air line into two equal lengths, making the cut as square to the axis of the tubing as possible. Insert the air line into the elbow and push until a positive click is felt.

## Step 3: Secure Brackets to Air Spring

Before bolting the air springs to the lower bracket, secure the Component 'A' onto the Lower bracket using the M8 countersunk bolts, flat washers and lock nuts. Fasten the air springs to the Lower bracket using 3/8" hex bolts and spring washers provided.

The top of the air springs have two studs and an air inlet hole. Position the Upper Outer Bracket on the air springs ensuring that the air inlet hole is exposed in the slot cut out of the bracket. Fasten the Upper Outer Bracket to the air springs using 3/8" hex nuts and spring washers.

*Note the Upper Outer bracket with the notch taken out of it is usually the right hand bracket (see parts list).*

## Step 4: Install Bracket/Air Spring Assembly

Place the assembly on the axle and position so that the Lower bracket rests on the axle as shown in diagram.

Bolt the Upper Outer bracket to the Upper Inner bracket (already fixed to the chassis) using the M8x1.5-90mm hex head bolts. Position the Lower bracket so that it is level on the axle.

Secure the Lower Bracket in place using the Bracket Straps and M10x1.5-40mm Hex head bolts and M10 washers and nuts

### Step 5: Routing the air tubing

Cut a long length of tubing in order to connect the valve to the nearest air spring. Do the same for the opposite side. Choose whether you want separate inflation valves for each side or one valve common to both sides using the T shaped connector. Use the nylon ties provided to tie the tubing up into a safe position.

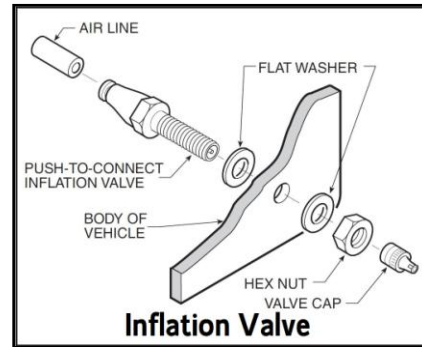


When cutting the air tube, it is vital that the tube is not cut at an angle. This could cause an air leak. It is recommended that a tube cutter or a sharp blade.



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.



#### 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.

#### Examination:

After assembly, inflate air springs and check all mounting bolts are tight. Screw all connections tight again. It must be ensured that the mounting brackets cannot move. If the plates touch the brake hose at the air springs, then these must be moved by suitable means.

If the vehicle is fitted with ABS or a Load Sensing Valve (LSV), then adjust the LSV to give maximum braking (1:1).

If the vehicle is fitted with ABS and no LSV, then no brake adjustment is required.

**For vehicles without ABS, please contact us on +353 1 8612632.**



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