



Unit 626 Kilshane Avenue, North West Business Park, Ballycoolin, Dublin 15, Ireland  
Telephone: +353 1 8612 632, Fax: +353 1 8612 647, email: sales@driveriteltd.com

## W21-760-3119

### Mercedes 4 Series Sprinter

#### **INSTALLATION INSTRUCTIONS**

All work should be carried out in a properly equipped workshop with due regard to Health and Safety Regulations. No further reference to Health and Safety Regulations will be made, but they must be considered at all times.

The kit should be opened and the contents checked against the parts list provided. Identify the various components and familiarise yourself with them using drawings and information provided.

#### **WARNING**

*Do not inflate this assembly when it is unrestricted. When installed, a minimum of 10 psi should be maintained in the air bellows at all times to avoid damage. Do not inflate beyond 100 psi.*

#### **IMPORTANT**

*This kit is not designed to increase the GVW of your vehicle. For your safety and to prevent possible damage to your vehicle, do not exceed the maximum load recommended by the vehicle manufacturer.*



## Parts List

Description	Quantity
Rear Top Airspring Bracket	2
Bracket Strap	4
Bracket Spacer	2
Front Top Airspring Bracket	2
Front Bottom Airspring Bracket	2
Rear Bottom Airspring Bracket	2
3mm Plate for Airspring	4
Clamps	4
M8 x 30 Hex Head Bolt	8
M8 Lock Washer	8
Cable Ties 2.6mm x 160mm	20
M14 x 1.5 Locknut	4

Description	Quantity
M12 x 25 Bolts	2
M12 x 60 Bolts	2
Thermal Sleeves	2
M8 x 25 Hex Head Bolt	16
M8 Washer	16
Tapered Sleeve Spring	4
Palnut for 7095	4
Elbow for 7095	4
1/4" Elbow	2
1/4" Inflation Valve	2
18 ft. 1/4" Tubing	1

## 1. PREPARATION:

The product you purchased consists of all parts necessary to make a successful completion of fitting it onto your vehicle. All parts are tested thoroughly. Please make sure you take all necessary safety precautions while fitting the kit.

Note: you should first read these instructions carefully and then take all parts out of the box and pre-assemble them as far as possible before fitting them onto your vehicle.

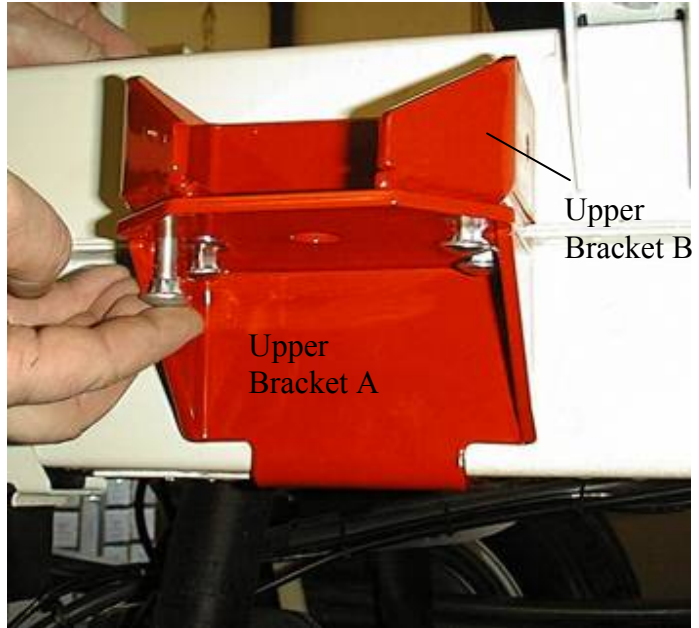
Your product is an air suspension unit in which 4 air springs are fitted onto your vehicle. This means that on either side of the vehicle, on the leaf spring, 1 air spring is fitted in front and 1 behind the axle.

This kit was thus developed for the series chassis and for the series wheel/tire combination. With a series vehicle if changes at the wheel tire combination are made, then attention must be made to the free movement of the wheels in all operating conditions. By sharpening the wheels if a bag is damaged, then no warranty claim exists!

## 2. INSTALLATION:

The bracket is illustrated in the driving direction. The Upper Bracket A is pushed upward from below the chassis frame and bolted with Upper Bracket B with lock screws. The upper bracket must be bolted so that this sits perpendicularly to the spring. It is advisable to only bolt the two upper brackets firmly after the assembly of the lower bracket with the framework.

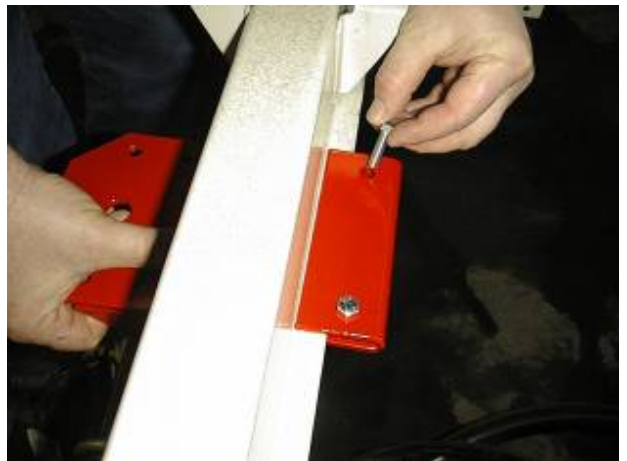
**It is important that it is ensured that the air bellows sits straight.**



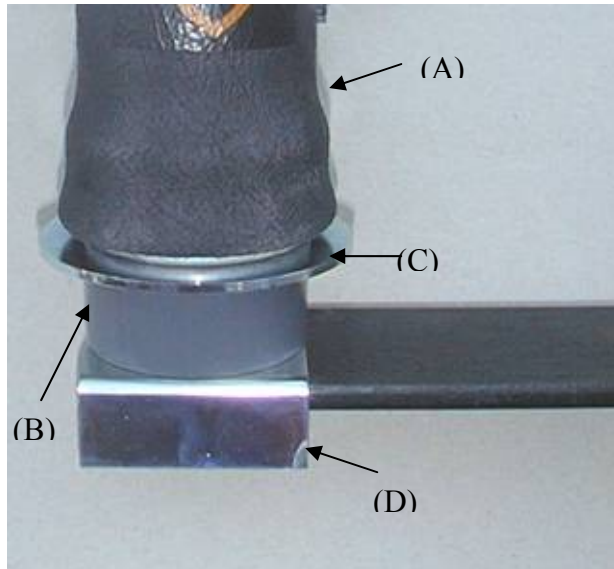
The bracket shown is the rear assembly as in the driving direction. This bracket is hollow in the center because of the stabilizer. For this purpose the bracket is pushed from below under the vehicle chassis frame and bolted with the upper bracket B with lock screws. The upper bracket must be fastened so that this stands perpendicularly to the spring.



Inside the chassis frame the bracket is bolted together with a metal clip (see photo).



Preparation of the lower bracket:  
The lower bracket is bolted firmly with the two air bags (A). For this purpose the front air bag is screwed together by means of socket-head cap screw, nylon spacer (B), metal disk (C) and locating bracket (D) in accordance with accompanying illustration.



**Pre Mounted Lower Bracket.**

Air bags with metal disk and nylon spacer is located forward in the driving direction. For the model Sprinter 408-416 motor home/flat bed vehicle the outside holes for mounting of the air bags are used.



In order to mount the lower bracket the U-bolt must be used.



The pre-mounted lower bracket is now attached onto the leaf spring with the provided U-bolt at the original spring fastening.

**The bags should be installed in such a way that neither construction units nor wheels can rub at the bags.**

Bags that are chafed through can not be replaced in the case of warranty.



Lower bracket must be fastened to the vehicle. The lower bracket must be fastened so that the air bag stands perpendicularly on the spring.

**Only after the air bags are aligned, both the upper and the lower bracket bolts are firmly bolted.**



The upper bracket is fastened to the air bag with the metal nuts provided.



After fastening the air bag, the air angle connections are screwed in.

**Note:**  
The threads of the air angle connection are conical. Do not tighten too firmly when pivoting into the air bellows.



The distance between the brackets must be selected in such a way, that in driving the air bags are installed perpendicularly to the spring.

**Note: If necessary brake hoses must be shifted. It must be guaranteed that when mounting no elements can rub together to cause brake wear from the bracket mounting plates!**

**Examination of the braking action at the rear axle**

The assembly of the auxiliary spring changes the chassis height in the rear axle. Due to this the brake pressure regulator and/or the braking action at the rear axle must be subject to partial appraisals.

**TORQUE SETTINGS:**

(valid for the most usual mobile travel vehicles)

**Wheel bolts:**

Motor vehicle type:	Wheel bolt	Torque Settings
Fiat Ducato 10/14	M14 x 1,5	160 Nm* <sup>2</sup>
Fiat Ducato Maxi	M16 x 1,5	180 Nm* <sup>2</sup>
Mercedes Sprinter	M14 x 1,5	180 Nm* <sup>2</sup>

**Heart pin (centering bolt) 8,8 \*<sup>3</sup>**

M 8	25 Nm
M 10	47 Nm
M 12	86 Nm

**U – bolts:**

M 8	25 Nm* <sup>3</sup>
M10	47 Nm* <sup>3</sup>
M12	118 Nm* <sup>3</sup>
M14	130 Nm* <sup>2</sup>

**Shock absorber:**

Fiat Ducato	160 Nm* <sup>2</sup>	
MB Sprinter 208-316	above 80 Nm	below 70 Nm Screws
8.8		110 Nm Schraube
10.9		
MB Sprinter 408-416	above 140 Nm	below 140 Nm

\*<sup>2</sup> manufacturer data


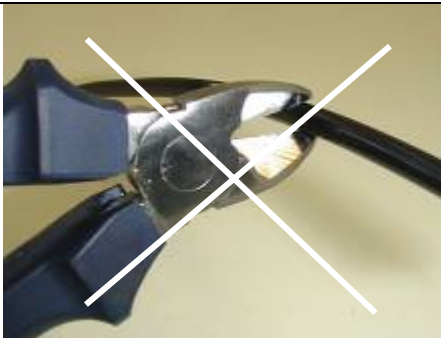

\*<sup>3</sup> DIN 13, sheet 33 shank end screws quality 8,8, coefficient of friction  $m = 0,14$

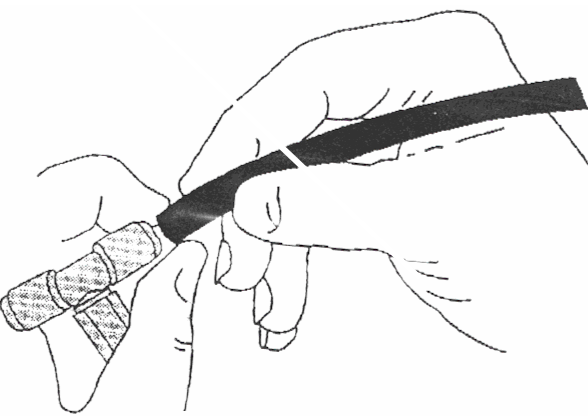
**TO AVOID LEAKAGES:**

The kits are supplied with compressed air via nylon hoses with an outside diameter of ¼“. The connections are called “Plug-in” connections. This kind of connection allows you to attach the air hose without a tool. Here the hose must be put so far into the connection, until it locks. The correct fit can be examined by easily pulling on the hose. To recognize if it is the correct fit, during pulling the hose, the ring of the connection moves along with the hose. For the loosening of the hose connector the hose must be pushed toward the Plug in connection. Subsequently, with the ring held, the hose can be taken off.

Note: With the pulling to check if the ring is too far pulled out, a leakage can occur!

Note: In order to avoid slow air losses, the nylon hose should be cut straight with a sharp blade. Do not use a side cutter.

 <p><b>Correctly cut.</b> Straight cut off.</p>	 <p><b>Wrong.</b></p>
<p>With frequent assembly use a nylon-tubing cutter.</p>	

<p><b>Air fittings:</b></p> <p>All air fittings are supplied with an easy “push to connect” fitting. To prevent leaking of air though, make sure that all tubing is cut squarely. These fittings make it easy to fit the air tubing and also to replace it if necessary.</p>	
--	--

**Brittle:**

Like all flexible rubber construction units, a certain natural embrittlement occurs with the air bag. This procedure is natural, since the softeners in the plastic evaporate. If this occurs, then this leads to a cracking at the surface layer of the bag. If the auxiliary pneumatic spring is driven with a wrong operating pressure the embrittlement is increased.

**Air loss/leakage:**

If within 24 hours the air pressure drops more than 0.2 bar a leak may be on the kit. If this is the case, then the complete kit must be sprayed with soap solution (leak detection spray). The leak is detected on the basis that bubbles appear. Most frequently the bubbles will be seen at the junction points after initial assembly. Mostly the reason for this is because of the non right-angled cut of hoses. As previously stated cutting off should take place by means of a straight cutter and not with the side cutter!

**Note:**

When driving on a ferry or when driving through a large bump on the road the possibility exists that at short notice the kit will be hit with a higher filling pressure (maximum 8 bar) than the vehicle is permitted to drive. Therefore, depending upon motor vehicle type and loading, the rear of the vehicle rises. This measure must be cancelled again however during normal travel, since this affects the braking action of your vehicle. If one drives on a high air pressure, then the brake delay of your vehicle can be reduced. Always guarantee that while driving the maximum operating pressure is kept in accordance with partial appraisals or registration papers.