



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	16
Cable Ties	20

Description	Quantity
M12 x 30 Countersunk Bolts	2
M12 x 60 Countersunk Bolts	2
Thermal Sleeves	2
M8 x 25 Dome Head Bolt	16
M8 Flat Washer	20
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.

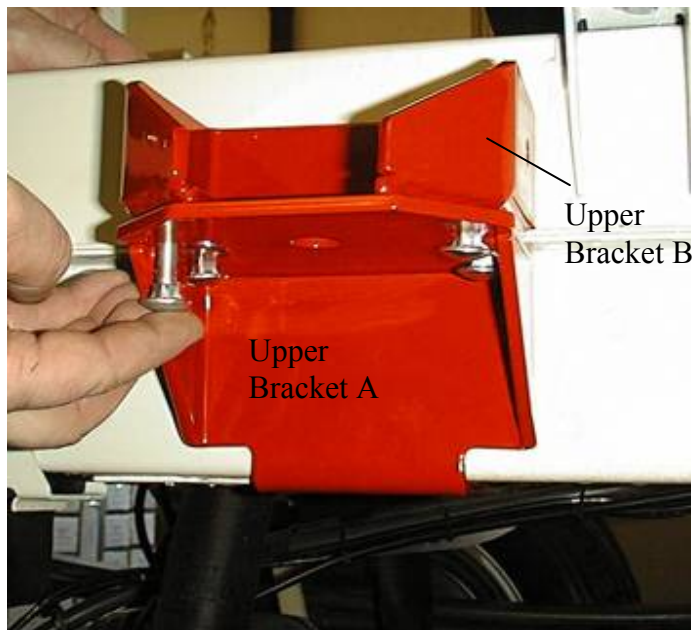
Your product is an air suspension unit in which 4 air springs are fitted onto your vehicle. This means that on either side of the vehicle, on the leaf spring, 1 air spring is fitted in front and 1 behind the axle.

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 over the chassis frame from the bottom. It is secured to the chassis using the Upper Bracket B. The final position of the Upper Brackets will be determined after the assembly of the lower brackets to the leafspring.

It is important that the air bellows sit straight.



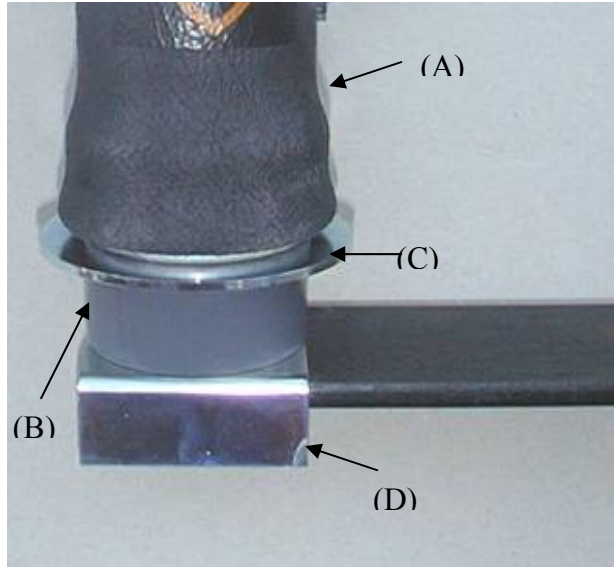
The bracket shown is the rear assembly in the driving direction. This bracket is hollow in the center to allow for the anti-roll bar. Due to this the bracket is pushed from the bottom of the chassis frame and bolted to the upper bracket B with the dome head bolts, lock washer and nut. The upper bracket must be fastened so that they stand perpendicularly to the spring.



The inboard side of the Upper Brackets are bolted together with the clamps (see photo).



Preparation of the lower bracket:
The lower bracket is bolted to the two air bags (A). In this case the front air bag is bolted using the long countersunk bolts, nylon spacer (B), metal plate (C) and locating bracket (D) as shown in the picture on the right.



Pre Mounted Lower Bracket.

Air bags with metal disk and nylon spacer is located forward in the driving direction. For the 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 temporarily removed.



The pre-mounted lower bracket is now attached onto the leaf spring with the new U-bolt and the original spring shoe.

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

Bags that are chafed through can not be replaced under 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 palnuts provided.



After fastening the air bag, the elbow air fittings are screwed in.

Note:
Do not over tighten the air fittings as this could damage the airspring thread



The distance between the brackets must be adjusted in such a way that at ride height 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 ^{*2}
Fiat Ducato Maxi	M16 x 1,5	180 Nm ^{*2}
Mercedes Sprinter	M14 x 1,5	180 Nm ^{*2}

Heart pin (centering bolt) 8,8 * ³

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

U – bolts:

M 8	25 Nm ^{*3}
M10	47 Nm ^{*3}
M12	118 Nm ^{*3}
M14	130 Nm ^{*2}

Shock absorber:

Fiat Ducato	160 Nm ^{*2}	
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

* ² manufacturer data

* ³ 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 $\frac{1}{4}$ ". The connections are called "Push to Connect" connections. This kind of connection allows you to attach the air hose without a tool. Here the hose must be pushed into the connection until it locks. The correct fit can be examined by easily pulling on the hose. To ensure a correct fit, when pulling the hose, the ring of the connection moves along with the hose. To remove the hose it must be pushed toward the Push to Connect fitting.

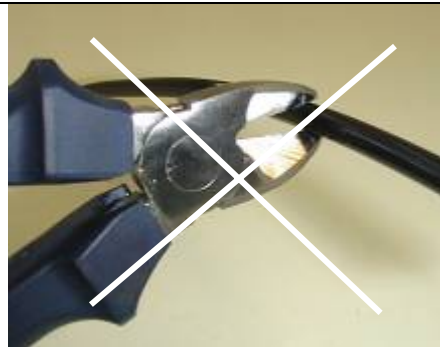
Subsequently, with the ring held, the hose can be taken off.

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 pliers or snips.



Correctly cut. Straight cut off.



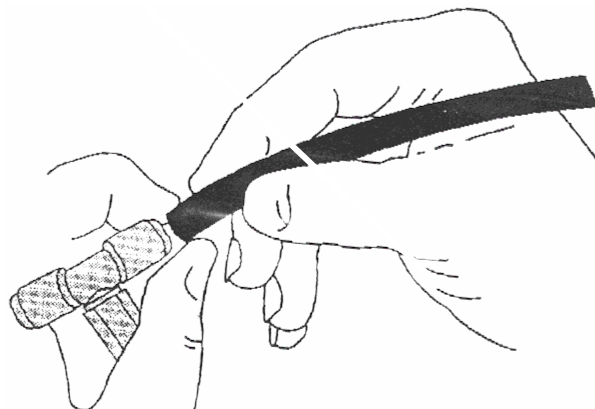
Wrong.

With frequent assembly use a nylon-tubing cutter.



Air fittings:

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.



Air loss/leakage:

If within 24 hours the air pressure drops more than 0.2 bar there may be a leak in 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. Usually 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 a pliers or snips.