

# **DRIVE▶RITE**

## **AIR SUSPENSION SYSTEMS**

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**DR.02.003446**

*W21-760-3446*

**FORD TRANSIT**

**FRONT WHEEL DRIVE, SQUARE REAR AXLE**

**TYPE 330-350, ABS Vehicle Only**

### **INSTALLATION INSTRUCTIONS**



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# Introduction

The purpose of this publication is to assist with the installation of the DR.02.003446 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](http://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            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

## Diagram



## HARDWARE LIST

Name	Quantity	Picture/Description	Part No.
Lower Bracket	2		DRV-7211
Upper Bracket	2		DRV-7210
Anti-Twist Plate	2		DRV-7212
Heat Shield	1		1004
Bail Clamp	2		3134
M10x1.5-40 Countersunk Bolt	2	Upper Bracket to Chassis (Opt A)	
M10x1.25-40 Countersunk Bolt	2	Upper Bracket to Chassis (Opt B)	0119
3/8" UNC Flange Nut	4		3022
Thermal Sleeves	2		0899
Air Springs	2		6397
1/4" Tubing	5m	18 feet	1141-1M
5/8-18 UNF Half Nut	2	Upper Bracket to Air Spring	3332
5/8 Flat Washer	2	Upper Bracket to Air Spring	3896
3/8 x 3/4 Flange Lock Bolt	2	Bottom Bracket to Air Spring	3069
1/8" Swivel Elbow	2		3053
Cable Ties	10		9037
1/4" Inflation valve	2		3032
5/16 Flat Washer	4	For Inflation valves	3638
1/4" Tee piece	1		3025

# Step by Step Installation

## ↘ Step 1: Remove the Bump Stop

Raise the chassis from the axle to create enough room to remove the bump stops.

**NOTE: Do not strain any brake lines or cables.**

Remove the bump stop assembly. These holes will be used to locate the upper brackets.

Detach the ABS cables from their holder on the left hand side of the vehicle.

Take note of the thread on the bump stop as it may be a **standard** or **fine thread**. There are Countersunk Bolts provided in the kit to suit both sizes. The correct sized bolt must be used.



## ↘ Step 2: Upper Bracket to Chassis

Position the upper brackets so that the folded up part of the bracket is facing up and is inside the frame in place of the original bump stops. To fit this bracket use the correct M10 countersunk bolts that have been determined in part one. (Discard the other two M10 countersunk bolts).

(Torque to approx. 38Nm for Standard Thread, Torque to approx. 43Nm for Fine Thread).



## ↘ Step 3: Lower Bracket to Air Spring

Fix the Lower Brackets on the air springs using the 3/8x3/4 Flanged Lock Bolts. (Torque to approx. 20-25Nm.)

Position the anti-twist plate onto the air spring ensuring that the stud fits into the correct hole. The anti-twist plate has an oblong hole in order to be able to regulate the air spring in the transverse direction. **Do not tighten the screw before the air spring is positioned correctly.**



### ↘ Step 4: Upper Bracket/Air Spring assembly to chassis

Place the air spring and bracket assembly on the frame and the axle to check the direction of the anti-twist plate.

The bend in the anti-twist plate should be on the outboard side of the chassis frame.

Attach the anti-twist plate and the air spring onto the upper bracket using the 5/8-18 nut. This bracket has an oblong hole in order to enable you to move the air spring in the longitudinal direction. Install the air fittings onto the air springs.

*(Torque to approx. 43Nm for Fine Thread)*



### ↘ Step 5: Lower Bracket/Air Spring assembly to axle

Fix the lower bracket onto the axle using the axle bail clamps and the 3/8" UNC Flange Nuts.

*Take care not to touch the brake line with the support, if need be twist the break line slightly.*

Check that the alignment of the air spring is good and not in contact with any other component of the vehicle. Tighten the 3/8x3/4 Flanged Lock Bolt on the lower bracket and the 5/8 UNF nut and washer on the upper bracket.

*(Torque to approx. 55-60Nm)*



### ↘ Step 6: Connect the Elbows

Screw the elbow connections onto the air springs. Then pass the ABS cable through the higher notch in the air spring bracket.

It is advised to use sealant on the elbow fittings.



## Step 7: 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.

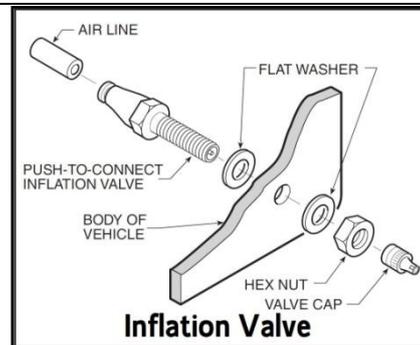


When cutting the air tube, it is vital that the tube is not cut at an angle. This could cause an air leak. It is recommended that a tube cutter or a sharp blade be used.



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.
- Ensure all fittings are fastened to recommended torque.

### 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.



TUV SUD AUTOMOTIVE GMBH Nestendstrasse 199 D-80686 München		
Teilgutachten Nr.:	12-00489-CX-GBM-00	
Hersteller:	Drive-Rite Ltd.	
Typ:	DR.02.0034...	Seite 1 von 9
<b>TEILEGUTACHTEN</b> Nr. 12-00489-CX-GBM-00 TGA-Art: 8.1		
über die Vorschriftsmäßigkeit eines Fahrzeuges bei bestimmungsgemäßem Ein- oder Anbau von Teilen gemäß § 19 Abs. 3 Nr. 4 StVZO		
für das Teil / den Änderungsumfang : Zusatz-Luffedersystem an der Achse 2		
vom Typ	: DR.02.0034...	
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für das Fahrzeug	: Ford Transit / Tourneo	

**TÜV Certificate Available, contact Drive-Rite for details**



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