

# **DRIVE▶RITE**

## **AIR SUSPENSION SYSTEMS**

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**DR.02.013448**

W21-760-3448

**FORD TRANSIT**

**REAR WHEEL DRIVE, ROUND REAR AXLE**

**Dual Rear Wheel, ABS Vehicle Only**

### **INSTALLATION INSTRUCTIONS**



**Ford Transit Model 2004 – 2014**



**New Ford Transit 2014**

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# Introduction

The purpose of this publication is to assist with the installation of the DR.02.013448 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 tyre, 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

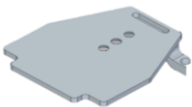
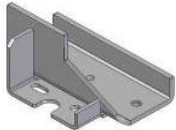
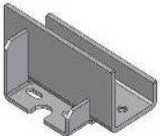

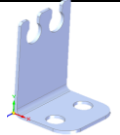

- To cut the tubing correctly an appropriate cutter must be used (not scissors)



- 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

## ↓ HARDWARE LIST

Parts List For DR.02.013448 (Rev 3)				
Part Name	Quantity	Picture/Description	Part #	Supplier
Lower Bracket	2		DRV-7538	Fabricator
Upper Left Bracket	1		DRV-7208	Fabricator
Upper Right Bracket	1		DRV-7207	Fabricator
U-Bolt	2		DRV-7539	Fabricator
Brake Pipe Relocator	1		DRV-7542	Fabricator
Locating Plate	1		DRV-7209	Fabricator
M10 Nyloc nuts	4	For M10 U-Bolts	3843	Fabricator
M10 x 1.5-35 C/Sink Bolt	2	Upper Bracket to Chassis <b>(A)</b>		Fabricator
M10 Flat Washer	4	For M10 U-Bolts	0079	Fabricator
M8 x 20 Bolts	5	Upper Bracket to Chassis		Fabricator
M8 x 25 x 2 Penny Washers	4	Upper Bracket to Chassis		Fabricator
M8 Nyloc nuts	1	For Locating Plate	0033	Fabricator
M8 Flat Washer	2	For Locating Plate	0007	Fabricator
M10 x 1.25-35 C/Sink Bolt	2	Upper Bracket to Chassis <b>(B)</b>	0119	Drive-Rite
Heat Shield	1		1004	Drive-Rite
Cable Ties	10		9037	Drive-Rite
Thermal Sleeves	2		0899	Drive-Rite
M10 x 20 C/Sunk Bolt	2	Air Spring to Lower Bracket	3845	
M10 x 20 Flange Bolt	4	Air Spring to Upper Bracket	3848	Drive-Rite
Air Springs	2	267C Metric Bags	6694	Drive-Rite
6mm Tubing	5m	18 Feet	1364-1MB	Drive-Rite
6mm Elbow	2	1/4" to 6mm	3614	Drive-Rite
6mm Inflation valve	2		3660	Drive-Rite
Tee piece	1		3666	Drive-Rite
Breather Tube	1	For Axle	3410	Drive-Rite
Compression Joiner	2	1/4" to 6mm	190	Drive-Rite

# 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.

If needed 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: Prepare the Air Spring assembly

Fix the Upper Brackets in place of the original bump stops using the correct M10 countersunk bolts that have been determined in Step 1. (Discard the other two M10 countersunk Bolts).

Screw the elbow connections onto the air springs. *It is advised to use sealant on the elbow fittings.*

On the exhaust side of the vehicle the Heat Shield must be placed between the Air Spring and Upper Bracket with the flange in position between the exhaust pipe and the Air Spring. (Torque to approx. 38Nm for Standard Thread, Torque to approx. 43Nm for Fine Thread).

The top of the Air Spring has two blind nuts and an air entrance hole. Attach the Upper Bracket to the top of the Air Springs using the M10 flange nuts and provided making sure that the air entrance hole is exposed in the bracket opening. (Torque to approx. 20-25Nm.)

IMAGE BELOW SHOWS FINAL ASSEMBLY, BUT DOES NOT REPRESENT SEQUENCE OF INSTALLATION.  
PLEASE FOLLOW STEPS AS DESCRIBED!





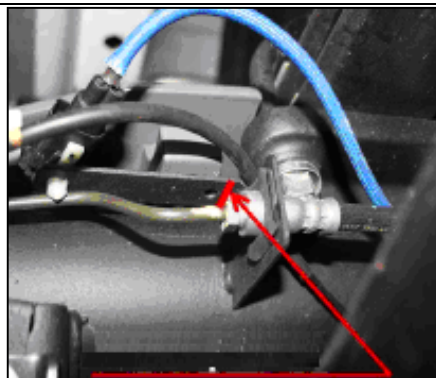
## Step 3: Prepare the Axle

### 2004-2014 Transit

To position the Lower Brackets correctly onto the axle, cut out the metal collar, which is being used to hold the electric wire.

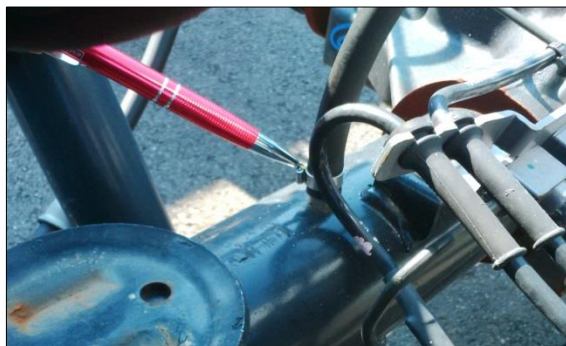
*During this operation protect the electric wire and the brake line to insure they do not get damaged.*

Fix the collar to the Lower Bracket using one of the M10 U-Bolts that are used to attach the Lower Bracket to the Axle Strap. *Do not fully tighten yet.*



### 2014 Transit only

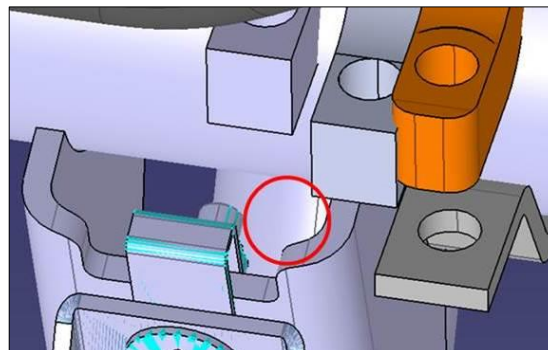
On the 2014 Transit there is a breather pipe relocated on the axle which has to be replaced with one provided in the kit.



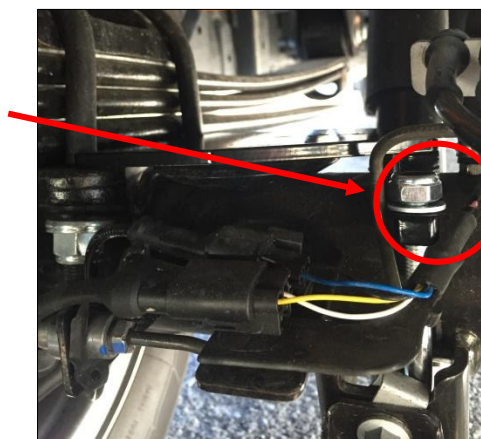
### **Step 4: Secure Lower Bracket to Axle**

Secure Lower Bracket to axle using the U-Bolts supplied. The U-Bolt is placed between the axle and the anti-roll bar bracket.

Use M10 nuts and washers provided.



Note: When Positioning Lower Bracket to axle ensure there is no clashing with brake lines. Move bracket inboard as much as possible.



### **Step 5: Reposition the Brake lines**

Depending on the year of the vehicle, there are two possible ways to relocate the brake lines.

2004-2014: use Locating Plate (DRV-7209)

2014 onwards: use the Brake Pipe Relocator (DRV-7542)

#### **2004-2014 Transit**

Temporarily move the bracket holding the brake lines in order to better position the Air Spring and Lower Bracket. (*Torque M10 bolts to approx. 38Nm.*)

***Reposition and tighten all.***



Take off the bracket holding the brake lines and carefully reposition it using:

- a) the original M8 bolt and
- b) the M8x20 bolt, M8 locknut, M8 Washers and Locator Plate provided in the kit.

**Note: Use extreme caution when carrying out this procedure so as not to damage any of the brake lines and no sharp edges are left over after cutting.**

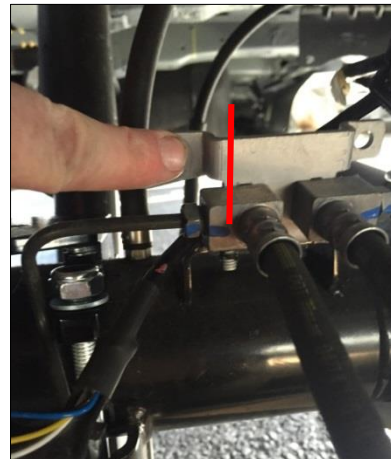


## 2014 Transit

Due to clashing with the brake line holder, this brake line holder has to be cut and a new bracket used, DRV-7542.

Cut the brake line holder along this line, ensuring not to damage any brake lines or electrical wires in the process.

**Note: Ensure there are no sharp edges after cutting.**

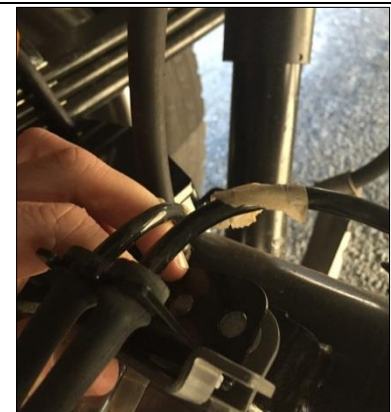


Place the brake lines into the new bracket.



Using a 10mm socket, unbolt the bracket which secures the brake lines to the axle and place the new bracket on top of it.

Re tighten the bolts.





## Step 6: 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.

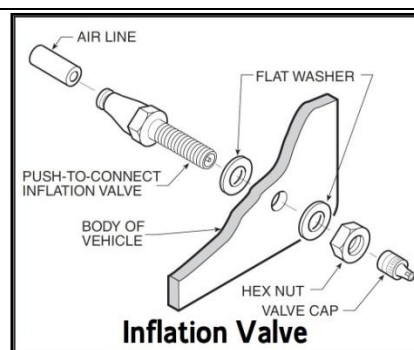


When cutting the air tube, it is vital that the tube is not cut at an angle. This could cause an air leak. It is recommended that a tube cutter or a sharp blade be used.



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.

## Step 7: Imperial to Metric Adapter Kit

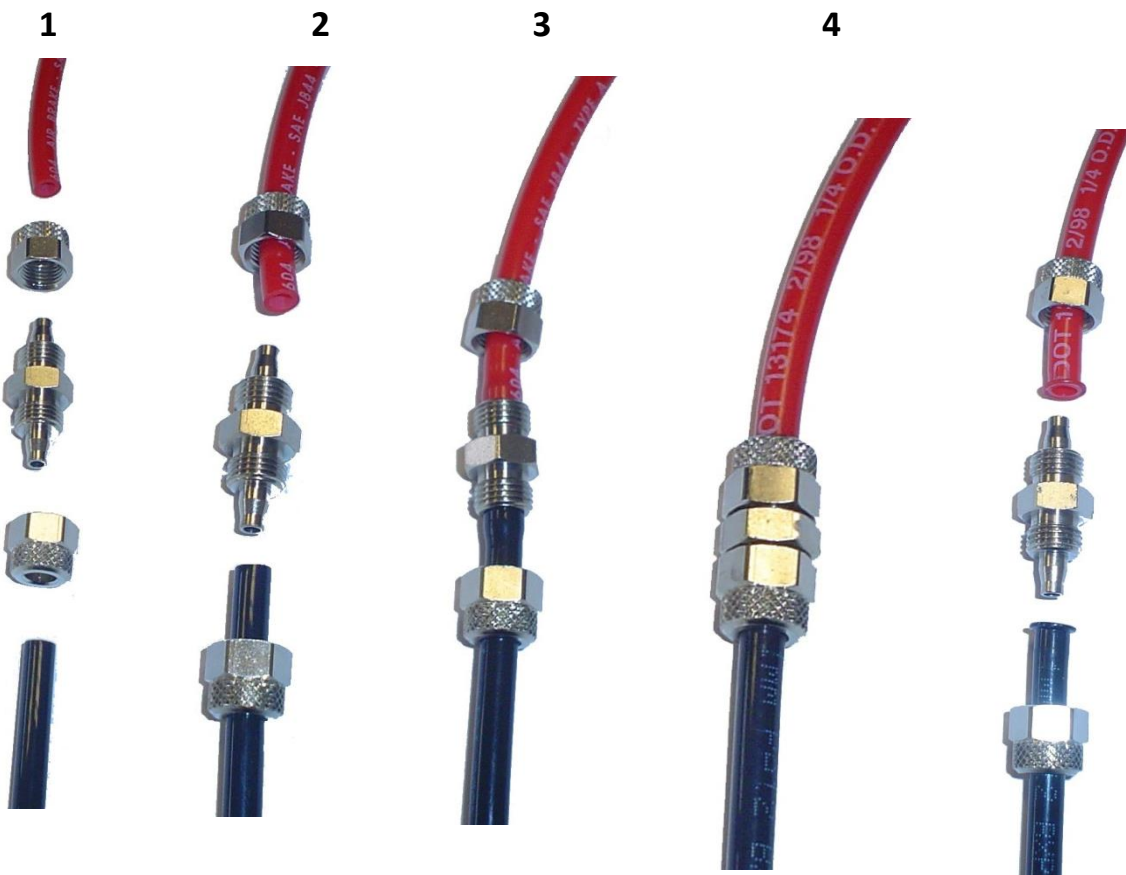
This kit is supplied with metric air fittings. Please follow the procedures outlined in this document if combining a metric air spring kit with an imperial compressor and gauge kit (Control kit).

**Do not attempt to connect imperial fittings to metric tubing (or vice versa) as leaks will occur.**

The air springs should be connected to the control kit using the supplied Compression Joiners.

1. Unscrew the two caps off the air fitting adaptor.
2. Insert the cap over the 6mm and 1/4" tubing.
3. Force the tubing over the air fitting collar. Ensure the tubing is fully inserted over the collar.  
*-Do not use a flame to soften the tubing as this can damage it and cause leaks.*

### 1/4" Imperial Tubing



### 6mm Metric Tubing

NOTES:


TÜV SÜD AUTOMOTIVE GMBH  
Westendstrasse 199  
D-80686 München



Teilegutachten Nr.: 12-00489-CX-GBM-01  
Hersteller: Drive-Rite Ltd.  
Typ: DR.02.0034...

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## TEILEGUTACHTEN

Nr. 12-00489-CX-GBM-01  
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-Luftfedersystem an der Achse 2

vom Typ : DR.02.0034...

Ausführungen: DR.02.003445 / DR.11.010003 (Vorderradantrieb)  
DR.02.003445 / DR.11.016110 (Vorderradantrieb)  
DR.02.003445 / DR.11.012236 (Vorderradantrieb)  
DR.02.003445 / DR.11.016112 (Vorderradantrieb)  
DR.02.003445 / DR.11.012436 (Vorderradantrieb)  
DR.02.003445 / DR.30.013332 (Vorderradantrieb)

DR.02.003446 / DR.11.010003 (Vorderradantrieb)  
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DR.02.003447 / DR.11.010003 (Hinterradantrieb)  
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