

# **DRIVE▶RITE**

## **AIR SUSPENSION SYSTEMS**

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### **DR.02.014005**

### **NISSAN NAVARA NP300**

## **INSTALLATION INSTRUCTIONS**



# Table of Contents

<b>Table of Contents .....</b>	<b>2</b>
<b>Introduction .....</b>	<b>3</b>
IMPORTANT SAFETY NOTICE .....	3
Special Instructions for Air Connections .....	3
<b>Kit Contents .....</b>	<b>4</b>
HARDWARE LIST .....	4
<b>Step by Step Installation.....</b>	<b>5</b>
Step 1: Remove the Bump Stop .....	5
Step 2: Attach the Elbows .....	5
Step 3: Upper Bracket to Air Spring .....	5
Step 4: Lower Bracket to Air Spring.....	6
Step 5: Upper Bracket/Air Spring assembly to chassis .....	6
Step 6: Lower Bracket/Air Spring assembly to axle.....	7
Step 7: Routing the Air Tubing .....	8

# Introduction

The purpose of this publication is to assist with the installation of the Drive-Rite Semi-Air air suspension 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.)

*While it is possible to inflate the system in static mode to 7 Bar (100 p.s.i.), it should not be necessary to exceed operating pressure in the region of 3.5 Bar (50 p.s.i.) at vehicle full GVW. This kit should not be used to carry any greater load than manufacturers stated GVW.*

*To avoid damage to airsprings – When the kit has been installed, please ensure there is adequate clearance (25mm) around the airspring so the airspring does not come in contact with any other parts.*

## **NEVER DRIVE WITH DEFLATED AIRSPRINGS**

## Special Instructions for Air Connections

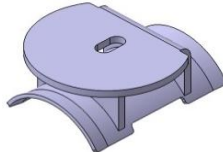
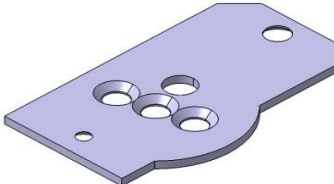
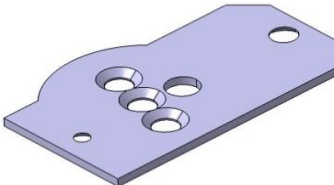
- To cut the tubing correctly an appropriate cutter must be used (not scissors)



- 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

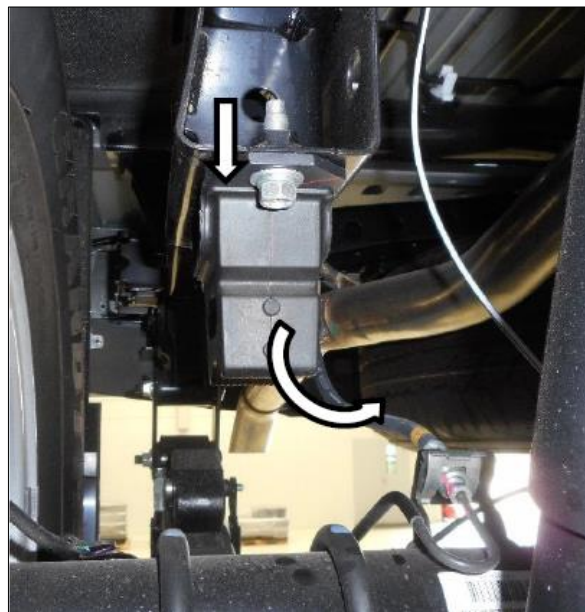
## ↓ HARDWARE LIST

Name	Qty	Picture/Description	Part No.
Lower Bracket	2		DRV-7588
Upper Left Bracket	1		DRV-7586
Upper Right Bracket	1		DRV-7587
M10 X 1.5 - 40 Countersunk Bolt	2	Upper Bracket to Chassis	3908
M8 x 1.5 - 30 Countersunk Bolt	2	Upper Bracket to Locating Tab	
M8 Spring Washer	2	Upper Bracket to Locating Tab	0011
M8 Hex Nut	2	Upper Bracket to Locating Tab	3822
Cable Ties	10		9037
Air Spring	2	Style 26 Metric	6784
3/8 x 3/4 UNC Flange Bolt	2	Air Spring to Lower Bracket	3848
3/8 x 3/4 UNC Countersunk Bolt	2	Air Spring to Upper Bracket	3845
6mm tubing	5		1364-1MR
<b>6mm to 1/4 Straight</b>	<b>2</b>		<b>3767</b>
<b>6mm Inflation Valve</b>	<b>2</b>		<b>3660</b>
<b>6mm Tee Piece</b>	<b>1</b>		<b>3666</b>
<b>6mm Compression Joiner</b>	<b>2</b>		<b>0190</b>
<b>Dust Cap</b>	<b>2</b>		<b>9064</b>

# Step by Step Installation

## Step 1: Remove the Bump Stop

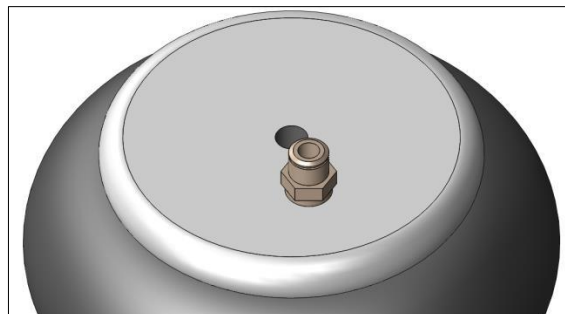
Un-bolt the bump stop from the chassis, the bump stop and bolts may be set aside as they will not be used.



## Step 2: Attach the Air Fittings

Install the supplied 1/4" to 6mm air fitting in the air entrance hole on the top plate (stud end) of the airbag and tighten until the nylon ring contacts the top plate then tighten a further 1/4 turn.

No additional thread sealant needed. If these fittings are re-fitted many times they will degrade their sealing ability.

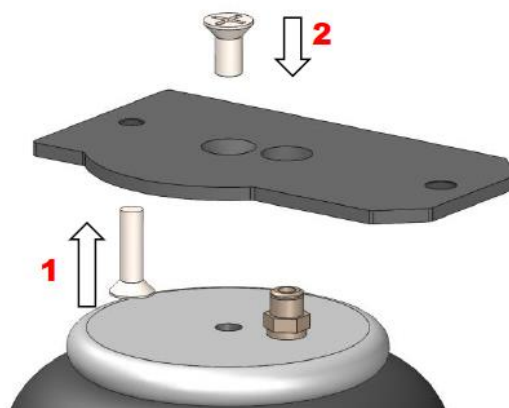


## Step 3: Upper Bracket to Air Spring

Select one airbag and an upper bracket from your kit. The Upper brackets are handed.

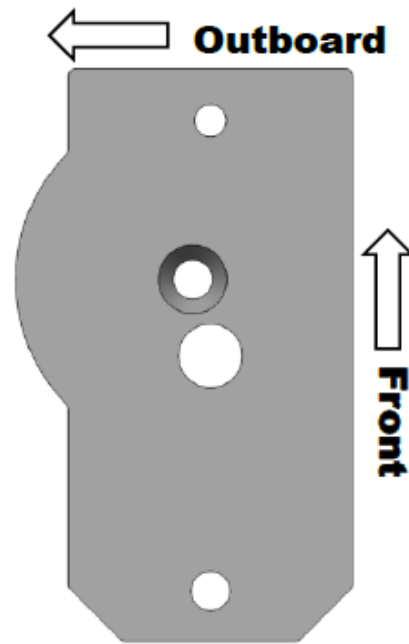
DRV-7586 is for the **Left** Hand Side of the vehicle.  
 DRV-7587 is for the **Right** Hand Side of the vehicle.

Align the air fitting with the 18mm hole in the centre of the bracket. Ensure that the bracket is facing the correct orientation, with the chamfers on the bracket pointing rearwards and the airbag sitting towards the outboard of the vehicle.



Place the M8 countersunk bolt into the forward countersunk hole, facing up (1). With the M8 bolt in place, fasten the upper bracket to the airbag using the supplied 3/8 X 3/4 Countersunk bolt (2).

Fit the other upper bracket to the second airbag, ensuring that the orientation is mirrored.



Left Hand Side Bracket Shown

#### **Step 4: Fit Airspring to Lower Brackets**

Select one lower bracket and fasten to the LHS airbag using one 3/8 X 3/4 flange lock bolt provided. Offset the lower bracket per the image.

Fit the other bracket to the RHS airbag as a mirror of the LHS.

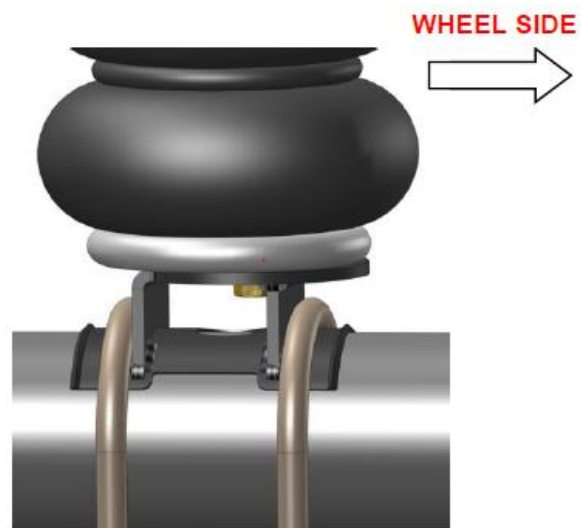
Tightening of these bolts can be carried out once the assemblies are fitted to the vehicle.

#### **Step 5: Fit Lower Bracket to Vehicle**

Release the u-bolts nuts so that the u-bolts can be lifted up about 10mm above the axle, then compress the assembly and set it in place on the axle by passing the lower bracket under the u-bolts. The u-bolts should be re-aligned to sit over the lower bracket as shown.

Allow the assembly to extend to its natural position, check that the top bracket is orientated so that the airbag is offset away from the centre of the vehicle.

**NOTE: Do not tighten the U-Bolts fully at this stage.**



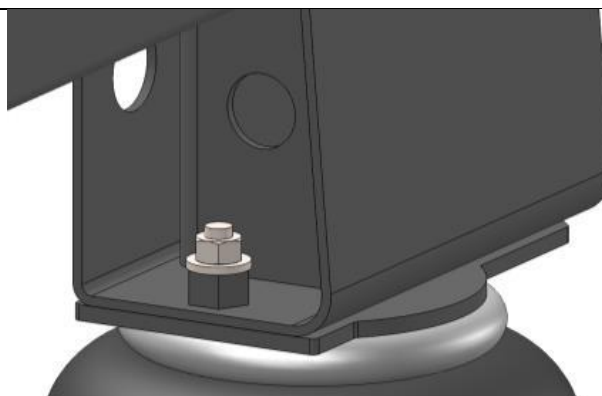
## Step 6: Upper Bracket to Vehicle

Feed the air line through the hole in the bump stop mounting brackets through the central bottom hole, to the airbag. Secure the air line to the straight inlet fitting on the top of the airbag.

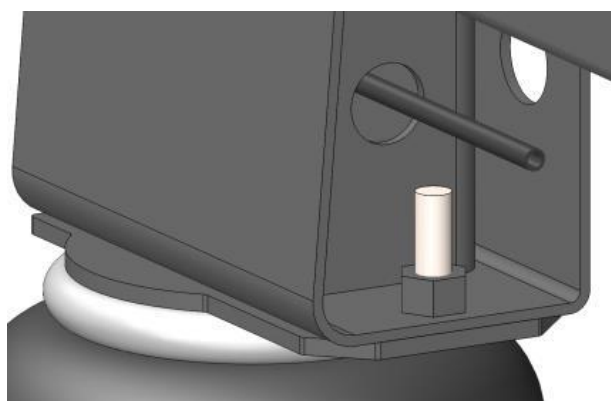
Align the upper bracket with the holes used to secure the bump stop in place.

The M8 countersunk bolt should be fed through the front hole. This is then secured with the M8 spring washer and M8 nut provided.

**Repeat Step 4 – 6 for opposite side of vehicle**



**Front M8 Bolt**

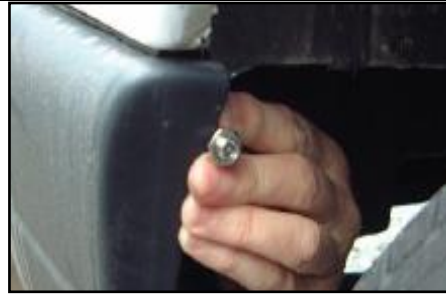


**Rear M10 Bolt**



## 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.

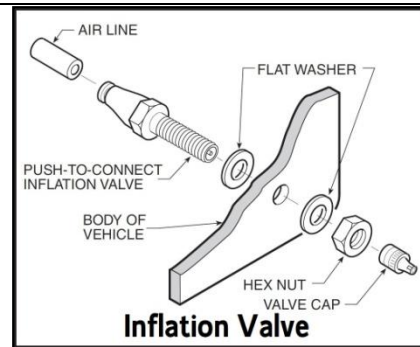


When cutting the air tube, it is vital that the tube is not cut at an angle. This could cause an air leak. It is recommended that a tube cutter or a sharp blade be used.



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.