

Instructions to fit the Snorkel Kit S003P

for the Jeep Commander Petrol

1.0 Introduction

Airflow Vector Pty Ltd thanks you for your purchase and the trust you put in our products.

We strive to supply our customers with the highest quality equipment based on the most efficient design and best styling. We are confident that you will enjoy using our Snorkel system.

It should improve the power of your vehicle as well as reduce its fuel consumption.

1.1 General instructions

Follow carefully the instructions listed on these pages and use the template provided, do not over tighten bolts. Do not use silicone on any connections, use mastic.

Ensure that safe work practices are followed when installing your Airflow Snorkel. Protective ear and eye wear should be worn at all times when using power tools.

1.2 Disclaimer

It is highly recommended that installation is undertaken by a qualified mechanic or panel beater. Airflow Vector will not be held responsible for any damage incurred through incorrect fitment of the templates and workmanship. It is the responsibility of the fitter to ensure that particular care is taken when assembling the Snorkel kit to the vehicle as it may cause damage to the windscreen and or electrical components. Safe work practices must be used at all times when undergoing installation.

We guarantee Airflow Vector's kits against manufacturing defects as long as proof of purchase can be established.

All models produced by Airflow Vector are verified to suit right hand drive vehicles according to Australian specifications. Variations in vehicle specifications may occur in other markets.

If you're in doubt about the product suitability, please forward a photograph of the engine bay, air filter housing and of the vehicle at frontal/side position to info@airflowvector.com

2.0 List of Components



S003P Kit content				
Ref	Designation	Qty	Length	Unit
SP168	Snorkel Jeep Commander	1		
SP063	Air Ram 3.5"	1		
SK037	Bolt kit	1	➔	
SP015	TPR Hose 76mm	1	600	mm
SP015	TPR Hose 76mm	1	200	mm
SP165	Under bonnet	1		
SP175A	Air box connector	1		
SP018	Hose Clamp 78/102mm	1		
SP019	Hose Clamp 59/83mm	5		
SP137	Elbow 76OD/65-76OD/60	1		
SP171	Plastic bag 280x380mm	1		
SD003	Template	1		
SD003PE	Booklet	1		

Fasteners included		
Ref	Designation	Qty
SP174	A Pillar bracket Jeep Commander	1
SP023	Washer Spring 1/4 x 1/4 Z/P	1
SP026	Screw Plug Nylon	2
SP024	G/Bolt M6 x 12mm Z/P	1
SP033	Washer 1/4 x 3/4 Z/P	6
SP029	Screw Self Tap 10gx5/8 Z/P	3
SP022	Stud M6 x 25mm Z/P	6
SP027	Flange Nut M6 Z/P	6
SP112	Pop rivet Bulbex 4x20mm	7
SP170	Plastic bag 75x125mm	1

Ensure that all parts listed are included in the parcel before starting any work.

The total expected time of installation is around 3 hours.

2.1 List of tools and additional parts required

Masking tape, clear tape, black mastic, hammer, centre punch

Assorted screw drivers, sockets and spanners

79mm hole saw

Assorted drill set, wet / dry sand paper, ½ round file, small square file,
Zinc rich primer

It will necessary to purchase 11 plastic rivets Ref CH-K6500911 from
Chrysler to re-install the splash panel (cost about \$4.00 piece)

3.0 Detailed Instructions



- 3.1 Prior starting any work, ensure that the configuration of the air box is as shown. If it is not, the fitting of this kit will not be possible. Contact your dealer for further assistance



- 3.2 Remove the splash panel
3.3 Discard the sound proofing tube



- 3.4 Disconnect and remove the top of the air box



- 3.5 Remove the air box from the engine bay

Airflow Vector Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733

www.airflowvector.com



3.6 Remove the air intake and discard it.



3.7 Grind off the tube protruding out of the air box



3.8 Cover the hole with a metallic plate (not supplied)



3.9 Use the connector SP175A as a template to mark a hole

3.10 Drill the marked hole into the plate



3.11 Fix the plate to the air box with rivets (not supplied)

3.12 Seal the plate with black mastic



3.13 Drill seven 4mm holes on the flange of the connector SP175A



3.14 Use the connector as a template to drill seven 4mm holes in the air box



3.15 Please wear gloves

3.16 Use only **NON** SILICONE BASE back mastic

3.17 Smear some sealant on the connector SP175A



3.18 Using the rivets SP112, attach the SP175A to the air box

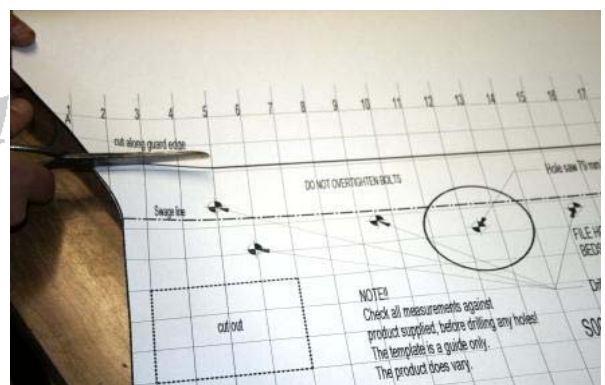


3.19 Smooth out the excess mastic both outside the air box...



3.20 Ensure there is no obstruction inside the air box

3.21 Let is dry while installing the snorkel



3.22 Read the template carefully

3.23 Cut the template out along the guard line

Airflow Vector Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733

www.airflowvector.com



3.24 Line up the template to the guard edges

3.25 Tape it to the guard ensuring to fit the contours of the guard



3.26 Centre punch all marked holes

3.27 Remove the template

3.28 Cover the areas to be drilled with masking tape



3.29 Pre-drill all holes at 5mm (6 snorkel mounting holes, 1 air intake hole)



3.30 Using the hole saw, drill at LOW SPEED a 79mm hole



3.31 Drill the 6 snorkel mounting holes at 10mm



3.32 File to suit snorkel tube and to remove any burr



3.33 Screw the 6 studs SP022 with chemical locking compound; at least 20mm must protrude



3.34 Fit temporarily the snorkel SP168 to allow the marking of the "A" pillar bracket



3.35 Peel off the rubber seal from the A Pillar



3.36 Fit the "A" pillar bracket SP174 with the washer SP023 and bolt SP024
Do not over tighten fixings to avoid damage to the snorkel



3.37 Mark the "A" pillar bracket position on the black strip



3.38 Remove the black strip from the "A" Pillar

Airflow Vector Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733

www.airflowvector.com



3.39 Grind the black strip along the marks made in step 3.37



3.40 This is what needs to be achieved



3.41 Refit the black strip on the "A" Pillar



3.42 Place the "A" Pillar bracket in the slot and centre punch the 2 holes

3.43 Drill through the black strip ONLY at 4mm to mark the metal underneath



3.44 Remove the black strip and the snorkel

3.45 Pre-drill two 4mm holes in the "A" Pillar



3.46 Then drill the two holes at 7mm



3.47 File the holes with a square file to suit nylon plugs SP026



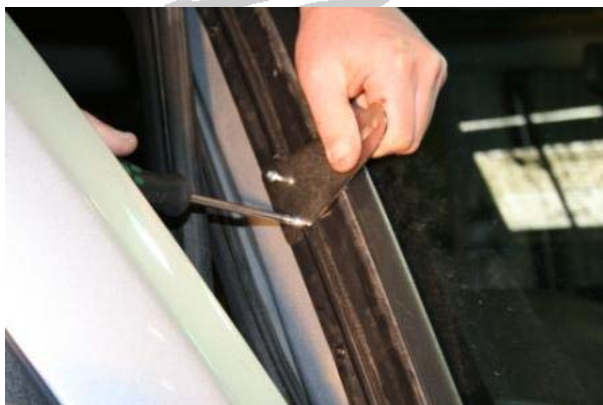
3.48 Paint ALL raw metal surfaces with Zinc rich primer (6 snorkel fixing holes, 1 air intake hole, 2 "A" pillar holes)



3.49 Once the paint is dry, fit the 2 square plugs SP026



3.50 Refit the black strip but omit the screw next to the bracket



3.51 Secure the bracket to the "A" pillar with the two self tap screw SP029



3.52 Re-fit the rubber seal onto the A Pillar

Airflow Vector Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733

www.airflowvector.com



3.53 Smear some sealant inside the under bonnet SP165



3.54 Slide a hose clamp SP019 on its short end

3.55 Position it under the guard



3.56 While holding the SP165 under the guard, connect the snorkel SP168 to it through the guard



3.57 Fit washers SP033 (x6) and the nuts SP027 (x6) to secure the snorkel to the guard

Do not over tighten fixings to avoid damage to the snorkel



3.58 Smear the inside of both sides of the TPR hose SP015 (200mm) with sealant

3.59 Slide the hose clamps SP019 on each end

3.60 Connect it to the air box and tighten the hose clamp



3.61 Smear the inside of both sides of the TPR hose SP015 (600mm) with sealant

3.62 Slide one hose clamp SP019 on one end



3.63 Position the TPR hose SP015 this way under the guard, ensuring that the hose clamp faces the back of the car



3.64 Slide the TPR hose through the inner guard inside the engine bay



3.65 Slide a hose clamp SP019 on the TPR hose

3.66 Connect the elbow SP137 to the TPR hose

3.67 Tighten the hose clamp



3.68 Slide back the TPR hose backward until only the SP137 protrude in the engine bay



3.69 Slide back the air box base assembly in the engine bay



3.70 Connect the TPR hose to the elbow SP137

3.71 Tighten the hose clamp

Airflow Vector Pty Ltd

4 Collins Rd, DROMANA VIC. 3936

AUSTRALIA

Ph: +61 3 5987 3733

www.airflowvector.com



3.72 Secure the air box base in the engine bay



3.73 Connect the other side of the TPR hose to the SP165

3.74 Tighten the hose clamp



3.75 Refit the splash panel using the plastic rivets previously purchased



3.76 Refit the cover of the air box and reconnect the outlet tube and sensing cables



3.77 Slide the hose clamp SP018 on the snorkel SP168



3.78 Slide the air ram SP063 onto the snorkel

3.79 Ensure that the top of the snorkel matches the top of the slot cut in the Air Ram



3.80 Tighten the hose clamp

3.81 Drill the hose clamp next to the worm drive



3.82 Secure the Air Ram with the self tapping screw SP029

Note: The Air Ram is also available in Fluro, green or blue

Note: This Snorkel is fitted with a second "A" pillar location to be installed if one intends to use the Collector Pre-Cleaner instead of the Air Ram. If required, please contact us to obtain the Bolt Kit SK237

Important note: Do not turn the Air Ram away from the direction of travel because it will lessen the positive pressure necessary for proper operation. **In extreme situation, at speed above 25km/h (15m/h) a vacuum may be generated causing irreversible engine damage**

Snorkels for your 4WD

4.0 Optional pre-cleaner (not included in this kit)



4.1 Remove the Air Ram SP063



4.2 Install Pre-cleaner filter sock SP065B



4.3 Air sock should neatly fit into the top of the snorkel body



4.4 Re-install the Air ram SP063

4.5 Tighten the hose clamp SP019

4.6 Screw the self tapper SP029 through the hose clamp

Snorkels for your 4WD



4.7 Polish with silicone cleaner

5.0 Improvement program

We strive to produce documentation and kits free of mistakes, however, should you discover any error or omission, please let us know by quoting the initials shown in the box overleaf.

Furthermore, if you think that a step of this procedure could be improved, please send us at info@airflowvector.com your suggestions indicating the procedure name, its release date, the step details and the photo if necessary.

We appreciate your support.

This kit has been carefully packed by	
Date	Initials

When the

counts

Snorkels for your 4WD

Note: The content of this manual may be modified from time to time to ensure that improvements brought to our kits are described accurately. Before starting the installation, try to obtain the latest version of the instruction manual from our web site www.airflowvector.com