

FITTING INSTRUCTIONS

Product:	SNORKEL
Vehicle:	R51 PATHFINDER (04/05) AND D40 NAVARA (08/05)
Part No:	011SAT0110L

READ INSTRUCTIONS CAREFULLY BEFORE COMMENCING ANY WORK

AIR CLEANER FORMAT: Left hand side front corner

SNORKEL BODY POSITION: Left hand side

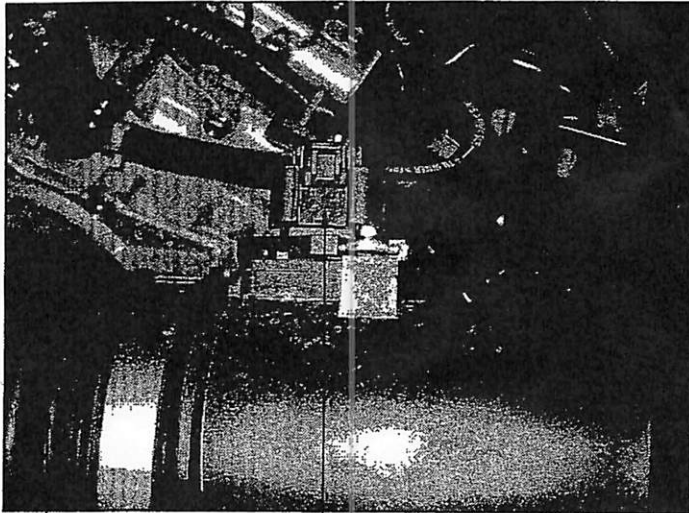
BEFORE COMMENCING FITTING, CHECK THE VEHICLE TO ENSURE THE AIRCLEANER CONFIGURATION IS AS SHOWN IN THE DIAGRAMS.

NOTE:

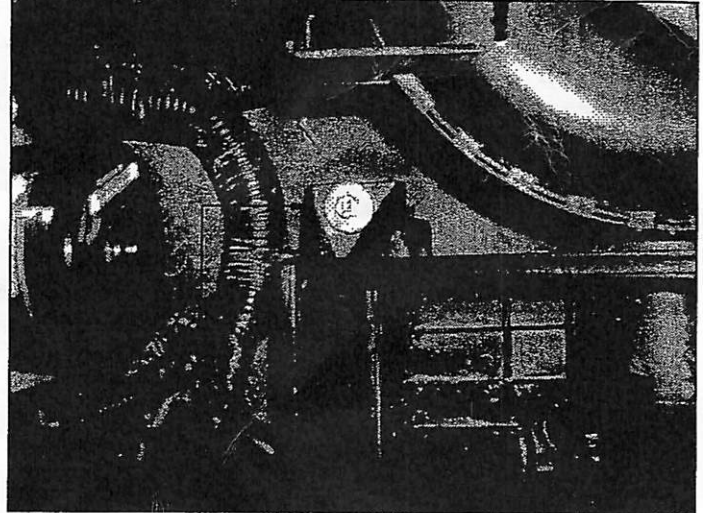
TO PREVENT THE SNORKEL BODY BEING DAMAGED BEFORE FITMENT, ALWAYS PLACE THE SNORKEL BODY ON CARDBOARD. DO NOT PLACE THE SNORKEL BODY DIRECTLY ON THE GROUND OR ANY ROUGH SURFACE.

Bolt Tensions	DIA (mm)	Nm	ft.lbs	DIA (inch)	Nm	ft.lbs	REV B 17.05.07	
All bolt tensions are as follows > (unless otherwise specified)	5	5	4	1/4"	9	7	<div>Checked</div>	<div>Approved</div>
	6	9	7	5/16"	22	15		
	8	22	16	3/8"	33	27		
	10	44	32	7/16"	55	43		
	12	77	57	1/2"	86	66		

1. Disconnect harness connector from mass air flow sensor. Refer Diagram 1.
2. Disconnect PCV hose. Refer Diagram 1.

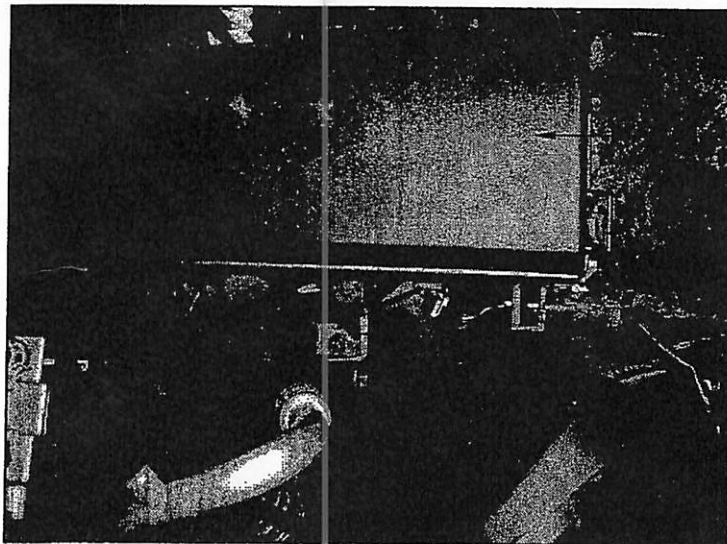
Diagram 1

PCV HOSE MASS AIR FLOW SENSOR

Diagram 2

BOLT LOWER AIR CLEANER CASE

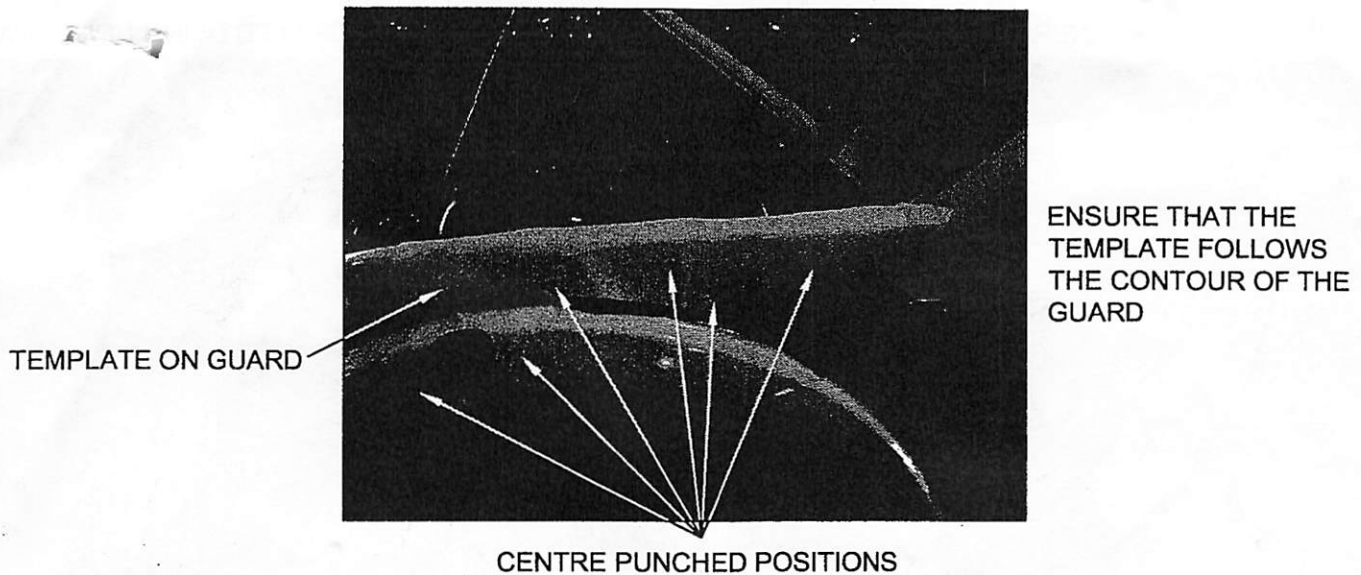
3. Unclip the upper air cleaner case and remove the breather clip/tube on the side of the case.
4. Lift out the air filter element. Remove the M6 bolt at the base of the lower air cleaner case. Refer Diagram 2. Remove the lower air cleaner case.
5. Move the under bonnet fuse box temporarily out of position to allow access for drilling the inner panel. Refer Diagram 3.

Diagram 3

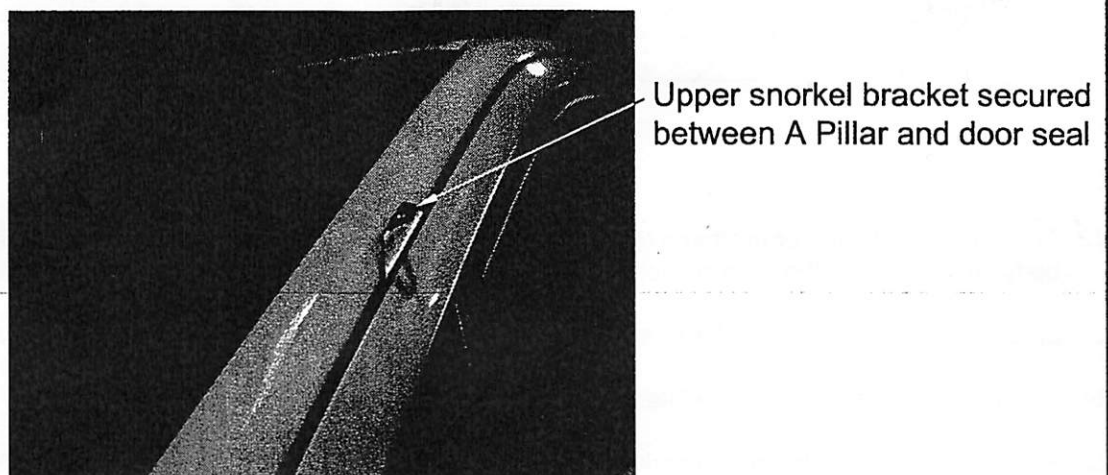
FUSE BOX

BOLT TO BE REMOVED

6. Remove the front left hand mudflap (4 screws).
- Hint:** Turn the wheel full lock to the left.
7. Remove the inner guard (6 screws and 4 clips).
 8. Remove and discard foam panel which is positioned adjacent to the air intake opening in the inner guard.
 9. Position the Outer Guard Template on the left hand side outer guard and secure with masking tape. Ensure the template lines up with the top and rear outer edges of the left hand side guard. Centre punch all 6 hole positions. See Diagram 4.

Diagram 4

10. Drill Ø3mm pilot holes for all centre punched positions.
11. Drill the 6 stud holes out to Ø13mm and the large hole out to Ø98mm using a Ø98mm hole saw. Deburr all edges of the holes and remove all metal shavings from inside the inner guard.
12. Apply a loctite compound to the six M8 x 1.25 x 30 studs and secure into the nutserts in the snorkel body .
13. Secure the upper snorkel bracket (N450) to top of snorkel body using one M8 x 1.25 x 16 stainless steel screw button head, spring washers and flat washers.
14. Test fit snorkel body. With the snorkel body aligned on the vehicle, mark the position of the two holes in the upper snorkel bracket on the inside of the A Pillar, between the A Pillar and the door seal. Remove snorkel body from vehicle and centre punch the two holes marked. Drill two Ø3mm holes.
15. Deburr all edges of the holes drilled in the A Pillar and guard using a deburrer or a file. Wipe down and clean guard and windscreen pillar to remove all metal shavings and dust.
16. Treat all drilled holes with rust preventative.
17. Remove the upper snorkel bracket from the snorkel body and secure the bracket between the A Pillar and the door seal using two 3/4" x 8G stainless steel screws. Refer Diagram 5.

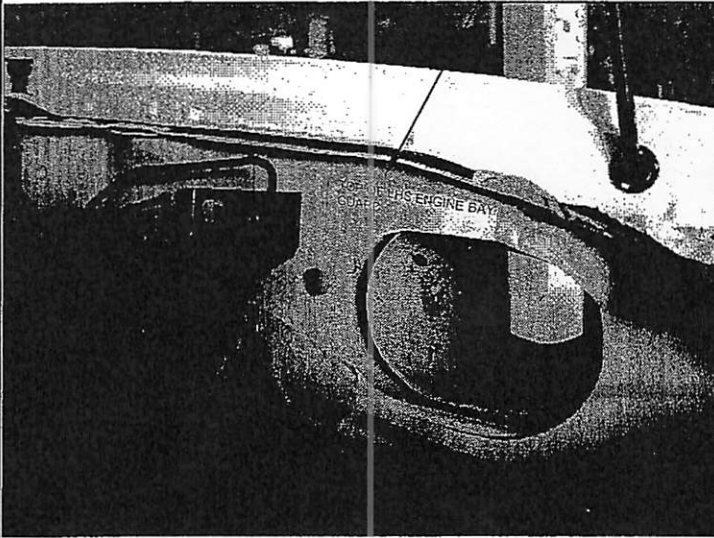
Diagram 5

18. Cut Inner Guard Template around the broken lines. Position Inner Guard Template against the inner guard. Refer Diagram 6. Ensure the big hole in the template lines up with the hole in the inner guard. Centre punch the hole on the template.

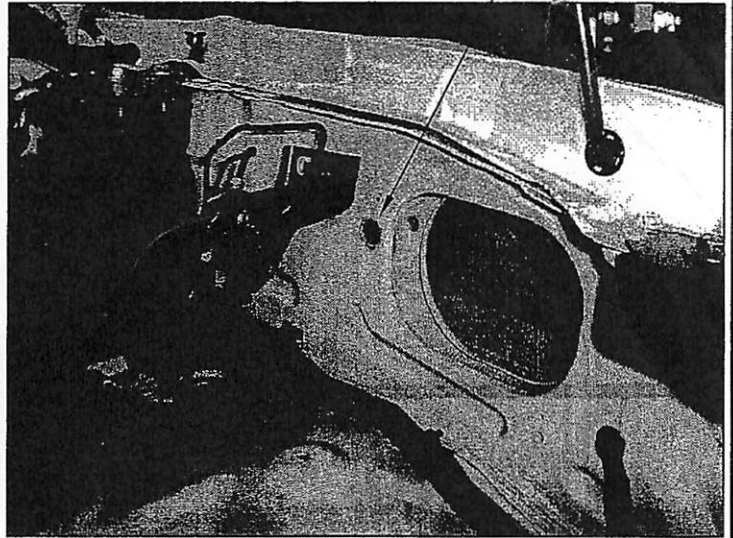
NOTE: To position the template, the brake-line junction may need to be unbolted from the inner side firewall.

Diagram 6

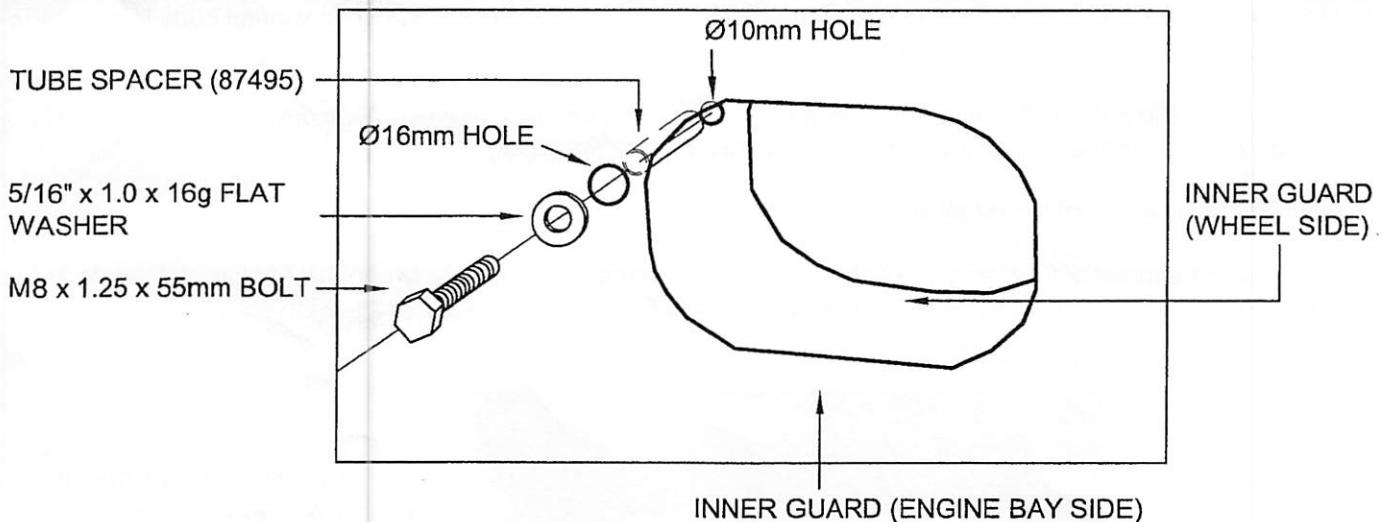
INNER GUARD TEMPLATE

Diagram 7

HOLE DRILLED USING HOLE SAW



19. Drill a Ø3mm pilot hole through the two inner guard panels. The (engine bay side) panel needs to be drilled to a Ø16mm using a hole saw. The (wheel side) panel needs to be drilled to a Ø10mm hole. De-burr all holes. Refer Diagrams 7 and 8.
20. Remove template and treat drilled hole with rust preventative.
21. Position the intermediate tube inside the inner guard. Secure the intermediate tube against the inner guard by using the bolt, washer and tube spacer. Refer Diagram 8.

Diagram 8

22. Apply neutral silicone or urethane to the inside of the tube section of the intermediate tube. Position snorkel body on vehicle. Fit the tube section of the snorkel body inside the tube section of the intermediate tube.
23. Inside the guard secure the 6 studs in the snorkel body using M8 hex nyloc nuts and flat washers.
24. Secure the snorkel body to the intermediate tube using the hose clamp supplied.
25. Secure snorkel body to upper snorkel bracket using M8 x 1.25 x 16 screw button heads, flat washers and spring washers.
26. Fit air ram to snorkel body and secure using the hose clamp supplied. When aligning air ram, align the two rivets securing the mesh approximately horizontal to each other. To provide clearance from vehicle windscreen pillar it is recommended the clamp worm drive be placed at the rear of the body.

FOR V6 MODEL ONLY

27. Trim the flange off the air cleaner case intake tube. Mark the cutting line on the tube approximately 5mm from the edge. Refer Diagram 9. De-burr the trimmed edge and remove all swarf. Refer Diagram 10.

Diagram 9

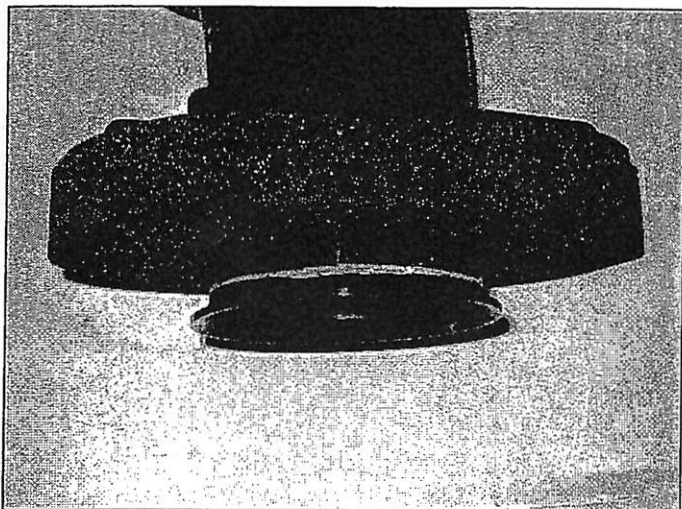
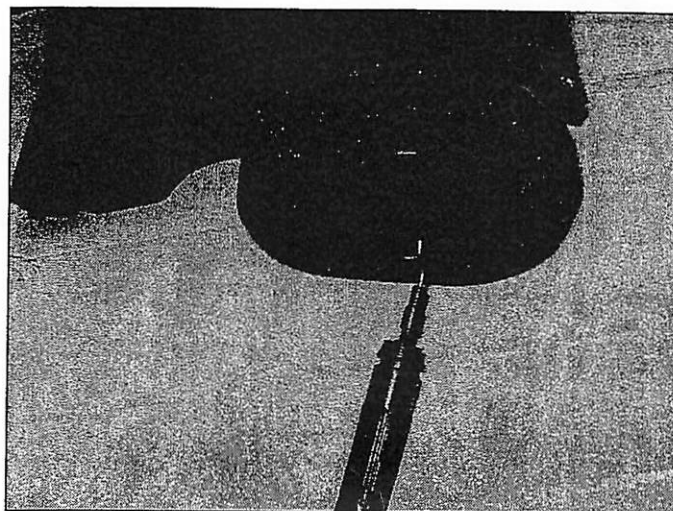


Diagram 10



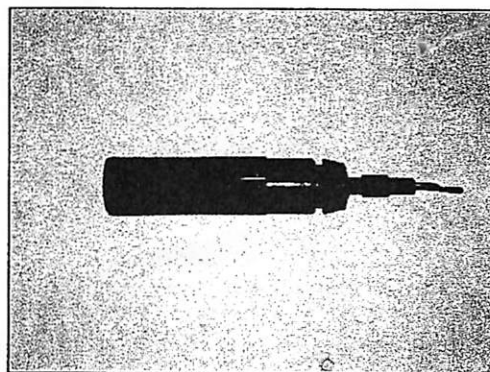
28. Tighten all the bolts and screws.
29. Re-fit all components in the reverse order of removal.
30. To provide a totally sealed intake system it will be necessary to remove all under-bonnet air cleaner plumbing and provide a seal to all original equipment joints using neutral cure silicone or urethane.

NOTES >

- * It is important to check all joints are correctly sealed.
- * Thoroughly clean the vehicle around snorkel body work area.

Recommended Tools >

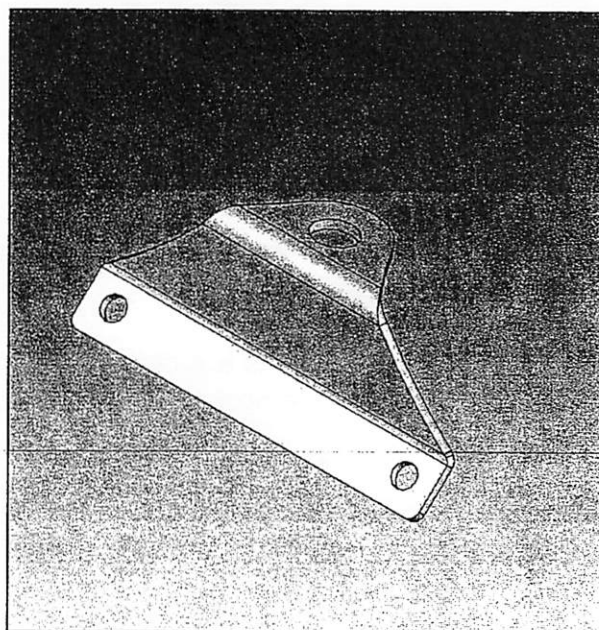
1. Ø98mm Hole saw
2. Ø16mm Hole saw
3. Deburring tool



DEBURRING TOOL

Bolt Kit Supplied:

- 1 - Snorkel Body (Part No. 011MB0010L)
- 1 - Intermediate Tube (Part No. 011IP0010L)
- 1 - Air Ram (Part No. 011AIRO497T) with hose clamp
- 1 - Upper Snorkel Body Bracket (stamped N450)
- 5 - M8 x 1.25 x 30 all thread studs (K1673)
- 5 - M8 x 1.25 Hex Nyloc nuts (K0606)
- 5 - 5/16" x 1-1/4" x 16G flat washers (K0859)
- 2 - 3/4" x 8G stainless steel PK screws (K0724)
- 2 - M8 x 1.25 x 16 stainless steel screw button head socket (K0858)
- 2 - M8 x 17 x 1.2 stainless steel flat washers (K0923)
- 2 - M8 x 3.0 x 2.0 stainless steel medium spring lock washers (K0924)
- 1 - M8 x 1.25 x 55 bolt (K1554)
- 1 - 5/16" x 1.0 x 16g flat washer (K1553)
- 1 - Tube Spacer (87495)
- 1 - Template 1 (LHS guard)
- 1 - Template 2 (Inner Guard Template)

UPPER SNORKEL BODY BRACKET
STAMPED N450