



4X4 ENGINEERING

SS76HFE

SAFARI V-SPEC SNORKEL
To Suit: Toyota LandCruiser 70 Series (Wide Nose)
4.0L V6 Petrol (1GR-FE Engine)



22/03/2012

Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	330-133-700	BODY - SNORKEL (SS76HF)	1
2	000-135-800	3.5" AIR RAM ASSEMBLY	1
3	330-032-700	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX - 6mm x 1.0 x 14mm (SEMS)	2
5	000-951-300	SCREW - S/T - 4.2mm x 16mm - S/S	3
6	000-960	INSERT - PLASTIC	3
7	000-110	STUD - 8mm x 1.25 x 25mm - S/S	5
8	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	5
9	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	5
10	330-024-750	HOSE - AIR ENTRY	1
11	330-025-750	JOINER - 90mm OD x 65mm Long (with mounting bracket)	1
12	000-909	CLAMP - HOSE - 80/100mm	3
13	000-310-100	WASHER - BODY 6mm x 15mm	2
14	000-204	NUT - NYLOC - 6mm x 1.0mm S/S	2
15	000-953-030	RUBBER EDGING - 300mm	1
16	000-914/B	CLAMP - HOSE - No.56 (BLACK)	1
17	330-017-700	TEMPLATE - GUARD PANEL	1

Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 120 min

Special Tools:

- 86mm Hole saw
- Body Saw (Reciprocating)
- Step Drill

- Loctite 243 (Thread Lock)
- Masking Tape
- Touch-up Paint

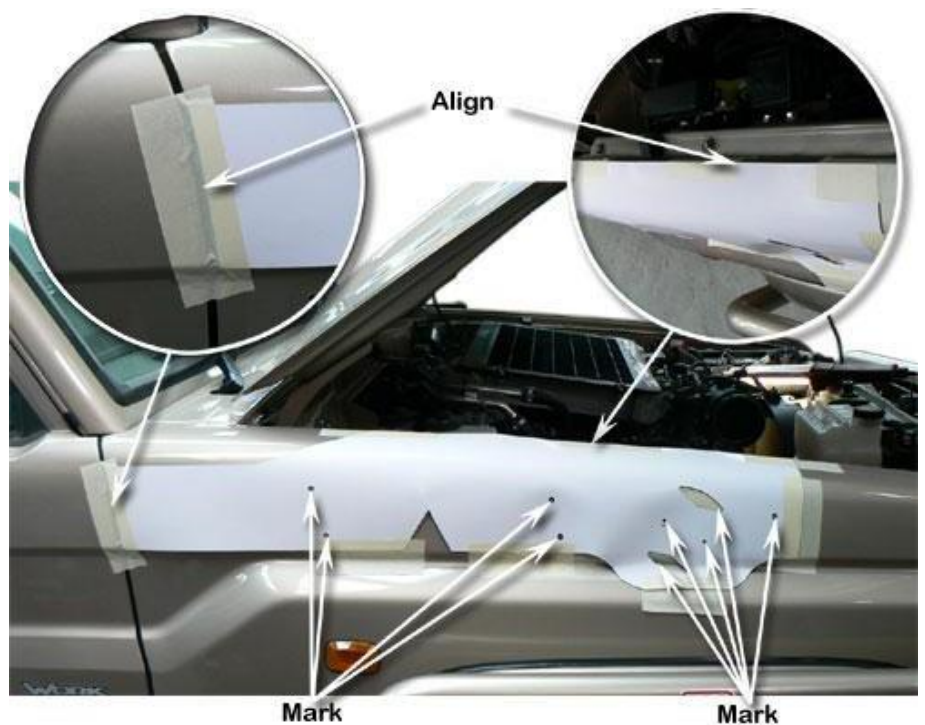
Prior to commencing the installation, it is the installer's responsibility to verify that all components and particularly the guard panel template (Item 17) are correct.

1 Remove the following in accordance with the factory service manual:

- Air Cleaner Hose
- Pre-Cleaner Assembly

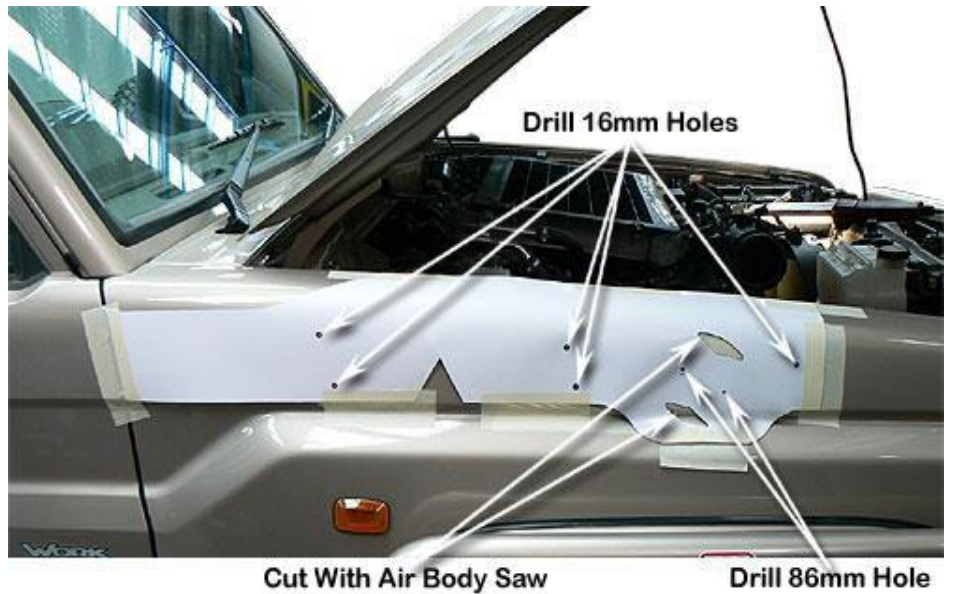
2

Tape the template (Item 17) to the rear and upper edges of the RHS guard panel. With the template correctly positioned, mark all of the hole positions and the two cut out sections with a felt tip pen. Remove the template.



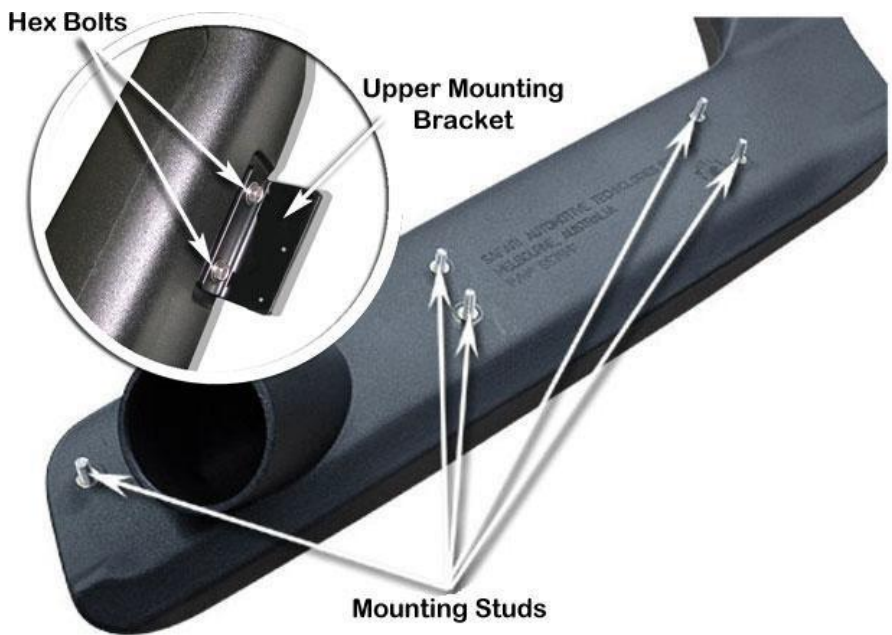
3

Drill a pilot hole for each marked hole position.
Drill the 2 main hole positions with a 86mm hole saw. Using the body saw, cut away the two marked sections of the guard panel.
Drill the 5 mounting hole positions to 16mm with a step drill. Deburr and paint holes to prevent rust.



4

Install the upper mounting bracket (item 3) to the snorkel body (item 1) with hex bolts (item 4).
Apply loctite 243 to each of the stainless steel mounting studs (item 7) and install the studs finger tight into the snorkel body (item 1) mounting inserts.



5

Place a strip of masking tape along the A-pillar panel.

Carefully install the snorkel body (item 1) to the guard panel.

With the snorkel body correctly positioned, mark the three upper mounting bracket hole positions onto the masking tape as shown.

Hint: if necessary push the top of the snorkel body towards the windscreen rubber, so that the edge of the upper mounting bracket has approximately 1mm gap to the windscreen rubber.



Mark Hole Positions

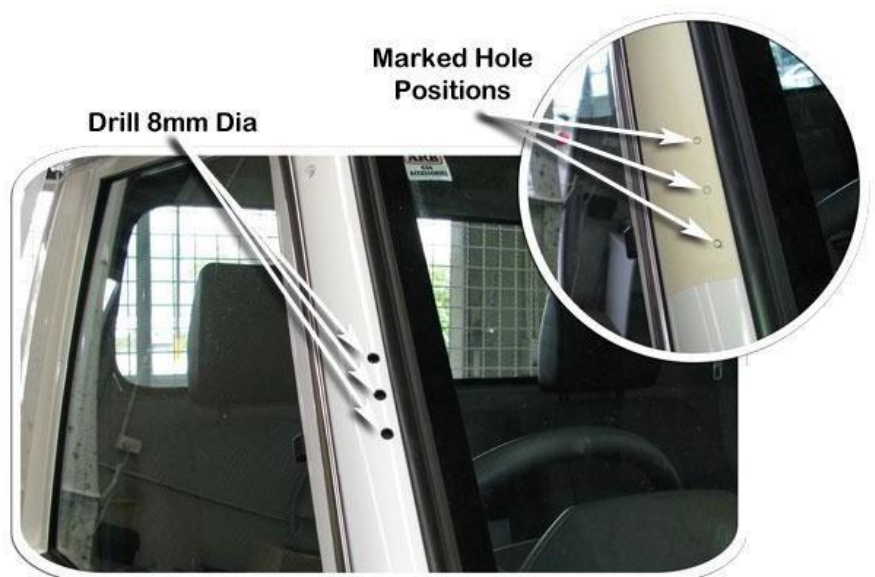
6

Remove the snorkel body (item 1) from the vehicle and remove the upper mounting bracket (item 3) from the snorkel body.

Drill a pilot hole at each of the three marked hole positions.

Drill each hole position to 8mm diameter with a step drill or 8mm drill bit.

Deburr and paint holes to prevent rust.



Install the plastic inserts (item 6) into the 8mm diameter holes in the A-pillar.

Secure the upper mounting bracket (item 3) to the A-pillar with three stainless steel self-tapping screws (item 5).



Carefully install the snorkel body (item 1) to the guard panel and align the snorkel body to the guard panel and upper mounting bracket.

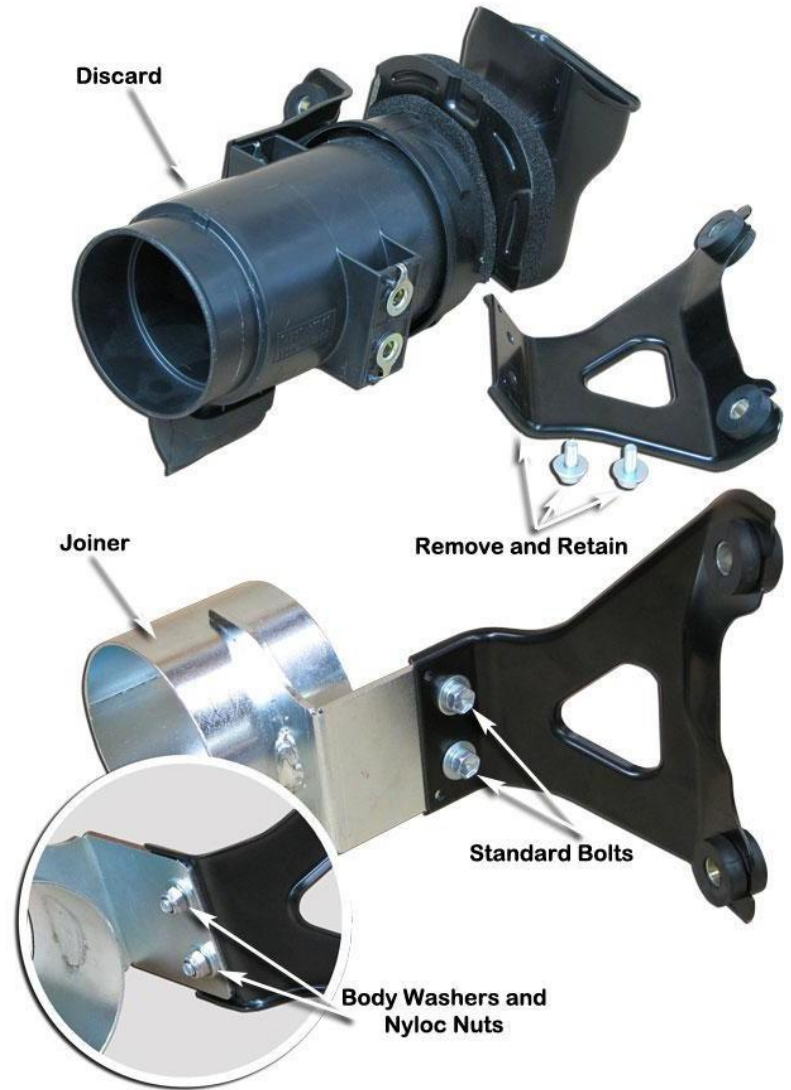
When correctly aligned, fasten the snorkel body to the guard panel with body washers (item 8) and nyloc nuts (item 9).

Fasten the snorkel body to the upper mounting bracket with hex bolts (item 4).



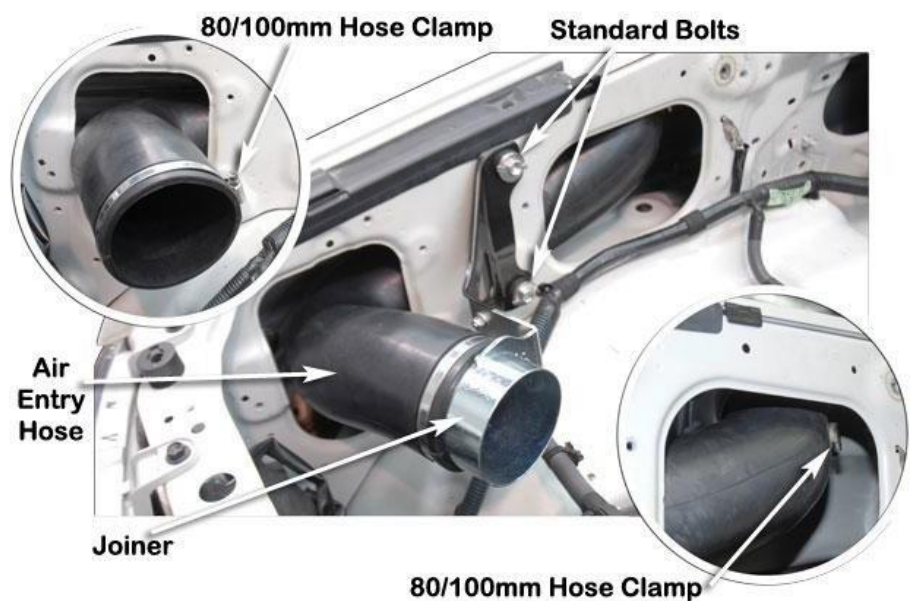
Remove the mounting bracket from the pre-cleaner assembly, install the joiner (item 11) to the bracket and secure with standard bolts, body washers (item 13) and nyloc nuts (item 14) as shown.

Discard the pre-cleaner assembly.



Install the air entry hose (item 10) through the hole in the inner guard, loosely install a 80/100mm hose clamp (item 12) to either end of the air entry hose and install the hose onto the snorkel body outlet snout.

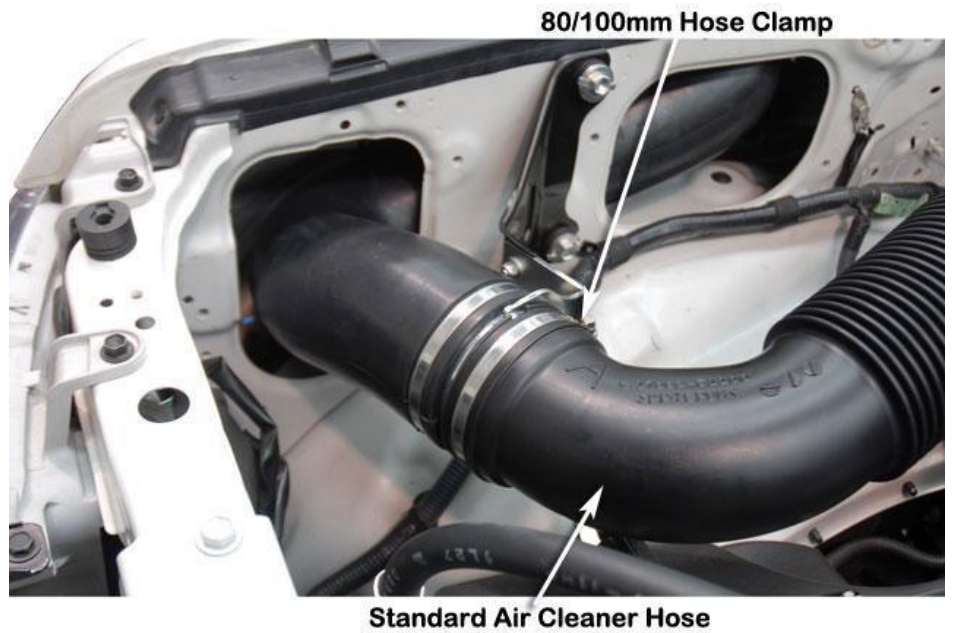
Install the joiner (item 11) into the air entry hose, secure the mounting bracket assembly to inner guard panel with standard bolts.



11

Loosely install a 80/100mm hose clamp (item 12) onto the standard air cleaner hose.

Install the standard hose onto the joiner and air cleaner housing and tighten the hose clamps at either end.



12

Install the black hose clamp (Item 16) loosely to the base of the air ram assembly (Item 2).

Install the air ram assembly onto the snorkel body.

Align the air ram and tighten the black hose clamp (Item 16).



13 N.B. It is the installer's responsibility to ensure that all connections are watertight.