



4X4 ENGINEERING

SS71HF

SAFARI V-SPEC SNORKEL
Toyota LandCruiser LJ70 Bundera
2.4L 4cyl Turbo Diesel (2L-T Engine)



03/08/2011

Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	330-133-000	BODY - SNORKEL (SS75HF)	1
2	000-135-050	3" AIR RAM ASSEMBLY	1
3	345-032-000	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX - 6mm x 1.0 x 14mm (SEMS)	2
5	000-951	SCREW - S/T - 4.2mm x 13mm - S/S	3
6	000-960	INSERT - PLASTIC	3
7	000-110	STUD - 8mm x 1.25 x 25mm - S/S	4
8	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	4
9	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	4
10	000-958-050	POP RIVET - 2.4mm x 4.5mm	2
11	345-024-000	HOSE - AIR ENTRY	1
12	000-907	CLAMP - HOSE - 60/80mm	1
13	000-908	CLAMP - HOSE - 70/90mm	1
14	000-918/B	CLAMP - HOSE - SIZE 48 (BLACK)	1
15	345-017-000	TEMPLATE - GUARD PANEL	1

Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 150 min

Special Tools:

- 89mm Holesaw
- Body Saw (Reciprocating)
- Step Drill
- 2.5mm Drill Bit
- Pop Rivet Gun
- 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 15) are correct.

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

- Air Cleaner Assembly
- Air Ducting

2

Remove and discard the Toyota Land Cruiser badge (if fitted) from the right hand guard panel.

Remove And Discard

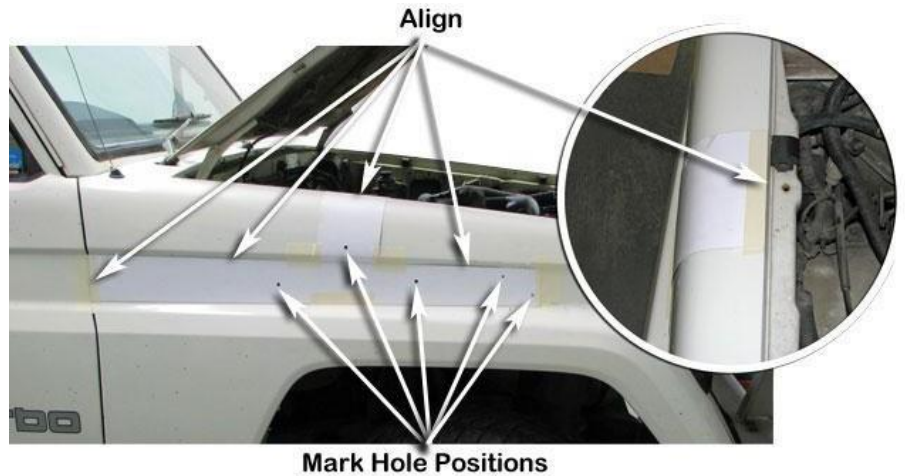


3

Align the guard panel template (Item 15) to the rear edge, upper edge and under the main crease of the guard panel as shown.

Tape the template to the guard panel with masking tape, mark all hole positions with a felt tip pen.

Remove the template.



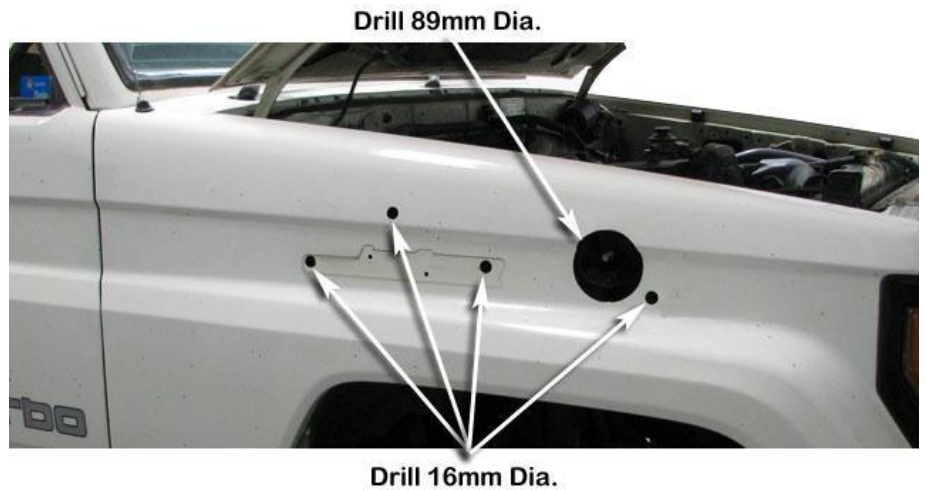
4

Drill a pilot hole for each of the marked hole positions.

Use a 89mm diameter hole saw to drill the snorkel body outlet hole position.

Use a step drill to drill the four mounting hole positions to 16mm diameter.

Deburr and paint all holes to prevent rust.



5

A section of inner guard panel must be removed, mark a straight line between the lower section and a slightly curved line between the upper section of the two standard holes as shown.

Using the body saw cut between the two standard holes and remove the section of panel as shown.

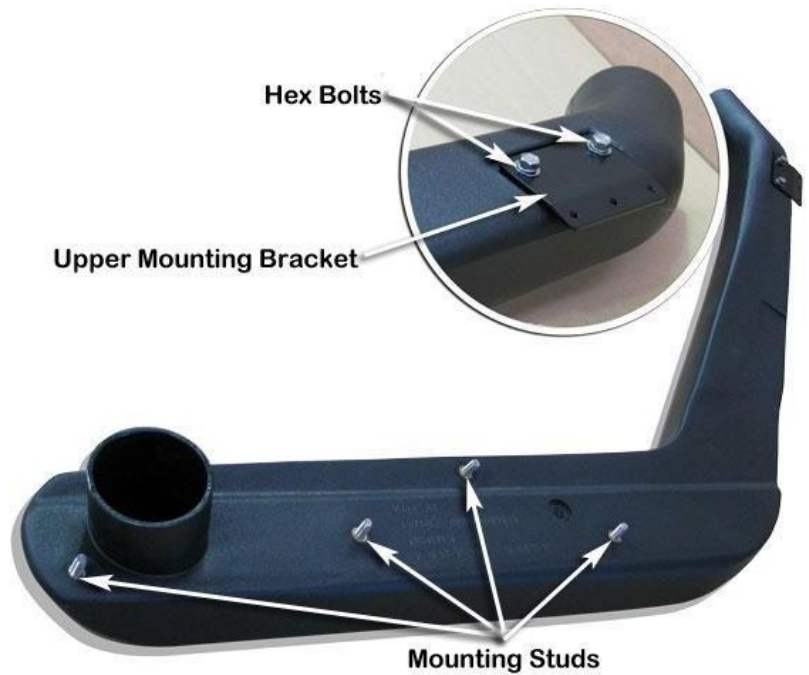
Deburr and paint to prevent rust.



6

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.



7

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.



Mark Hole Positions

8

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.

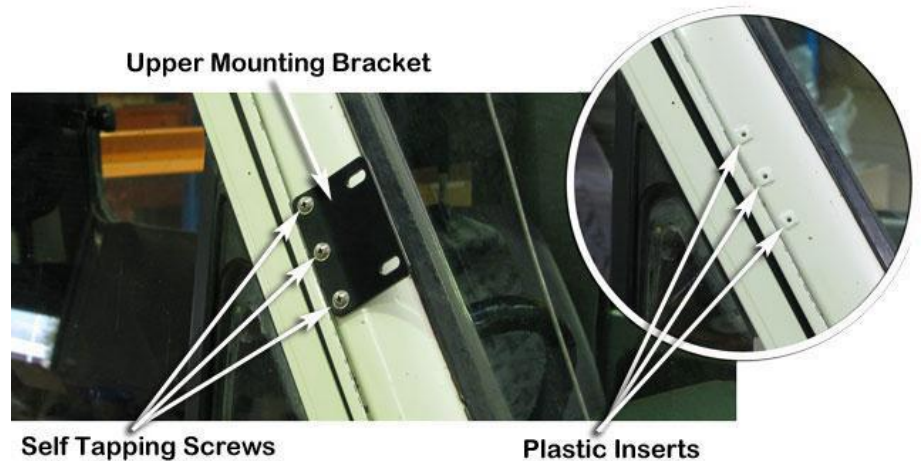
Deburr and paint holes to prevent rust.



Drill 8mm Dia.

Install the plastic inserts (item 6) into the upper mounting bracket holes in the A-pillar.

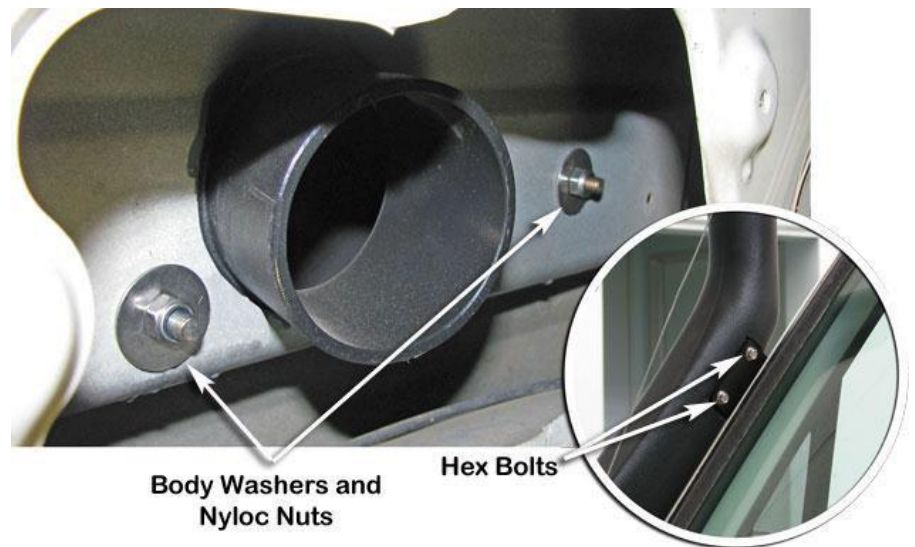
Secure the upper mounting bracket (item 3) to the A-pillar with three stainless steel self tapping screws (item 5).



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



Mark a line 28mm in from the end of the air inlet snout of the air cleaner housing as shown.

Use a body saw / hacksaw to cut-off the front section of the air inlet snout.

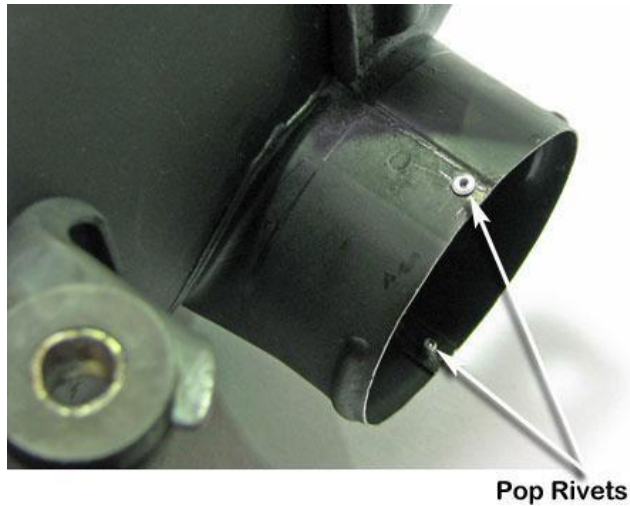
Mark and drill two holes in the air cleaner inlet snout, 4.0mm in from the cut-off end and in the centre of the joined section as shown. Drill a 2.5mm hole at each of the marked hole positions.

Deburr and paint the air cleaner inlet snout to prevent rust.



12

Install the two pop rivets (item 10) into the 2.5mm diameter holes, using the pop rivet gun secure the two pop rivets.



Pop Rivets

13

INSTALLER OPTION

The air cleaner lid contains a particle separator with a drain valve as shown.

The drain valve must be in a serviceable condition to prevent water from entering the air intake.

It is up to the installer to decide whether the drain valve requires replacing or sealing with sealant.



Drain Valve

14

Loosely install the 70/90mm hose clamp (item 13) over the air entry hose (item 11) inlet.

Install the air entry hose with the hose clamp installed onto the snorkel body outlet snout.

Position the 70/90mm hose clamp for accessibility to the hex drive.



Air Entry Hose

70/90mm Hose Clamp

15

Loosely install the 60/80mm hose clamp (item 12) over the air entry hose (item 11) outlet.

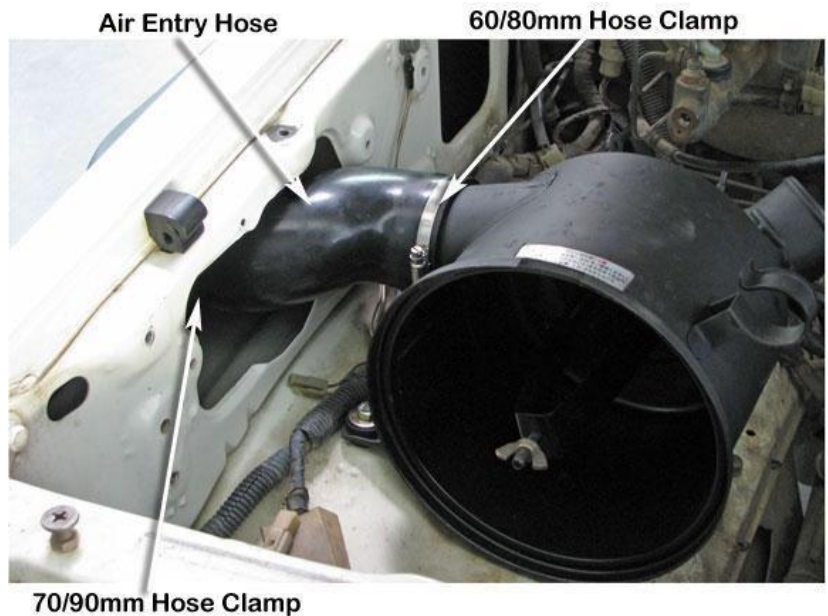
Install the air cleaner housing, guiding the air cleaner inlet into the air entry hose (item 11).

Secure the air cleaner housing with the original mounting hardware.



16

Align the air entry hose (item 11) for best fitment and tighten the 70/90mm hose clamp (item 13) and the 60/80mm hose clamp (item 12).



17

Install the black hose clamp (Item 14) loosely over 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 14).



18

Install the standard air filter element, air cleaner lid and any other components that may have been removed during the snorkel installation process.

19

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