

# SS185HFE

SAFARI V-SPEC SNORKEL  
To Suit: Toyota Land Cruiser Prado 90 Series  
with 2.7L 4cyl petrol (3RZ-FE) engine



01/04/2015

## Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	395-133-000	BODY - SNORKEL	1
2	000-135-400	3" AIR RAM ASSEMBLY	1
3	390-032-000	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX 6mm x 1.0mm x 14mm	3
5	000-951-300	SCREW - S/T 4.2mm x 16mm S/S	4
6	000-960	INSERT - PLASTIC	4
7	000-110	STUD - S/S 8mm x 1.25mm x 25mm O/L	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	395-024-200	HOSE - AIR ENTRY	1
11	000-908	CLAMP - HOSE 70/90mm	2
12	395-025-200	JOINER - AIR ENTRY (78mm OD x 55mm Long)	1
13	000-958	POP RIVET - 4.0mm x 12mm	3
14	395-017-000	TEMPLATE	1
15	000-918/B	HOSE CLAMP - SIZE 48 (BLACK)	1

## Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 120min

Special Tools:

- 86mm hole saw
- step drill
- 4.0mm drill bit
- pop rivet gun
- touch-up paint
- masking tape
- Air/Body saw
- Sikaflex 227 Adhesive Sealant
- Loctite 243 Threadlocker

**Prior to commencing the installation, it is the installer's responsibility to verify that all components and particularly the template (Item 14) are correct.**

- 1 Remove the air cleaner assembly and the RHS front wheel arch liner in accordance with the factory service manual.

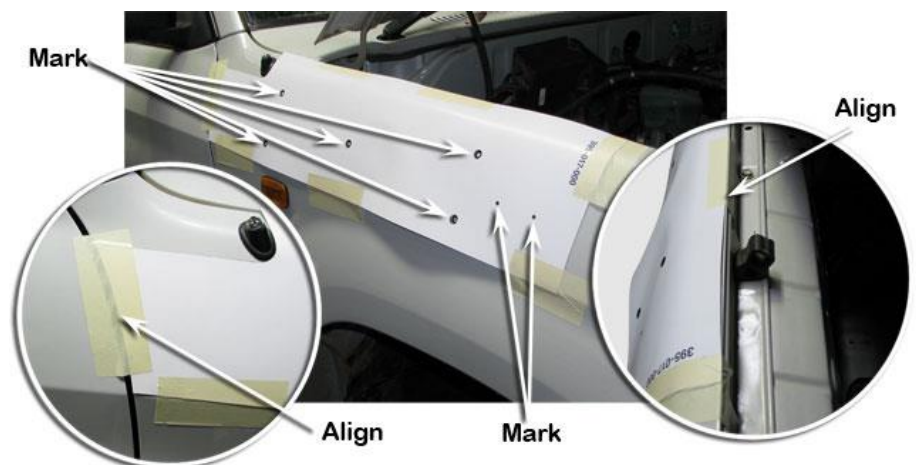
- 2 Remove and discard the air inlet ducting.



- 3 Tape the template (Item 14) to the rear and upper edges of the RHS guard panel.

With the template correctly positioned, mark all of the hole positions with a felt tip pen.

Remove the template.



4

Drill a pilot hole for each hole position.

Pilot Drill Hole Positions



5

Use a step drill to drill the five mounting holes to 16mm diameter.

Step Drill 16mm Diameter



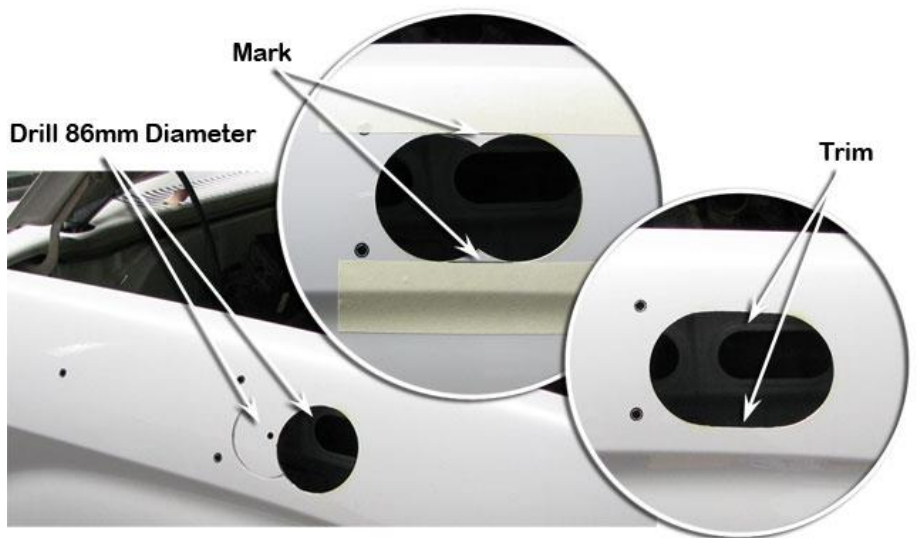
6

Use an 86mm hole saw to drill the two holes for the snorkel body outlet snout.

Mark a straight line at the top and bottom between the two 86mm diameter holes.

Use an air/body saw to trim the panel between the two 86mm diameter holes.

Deburr and paint all holes to prevent rust.

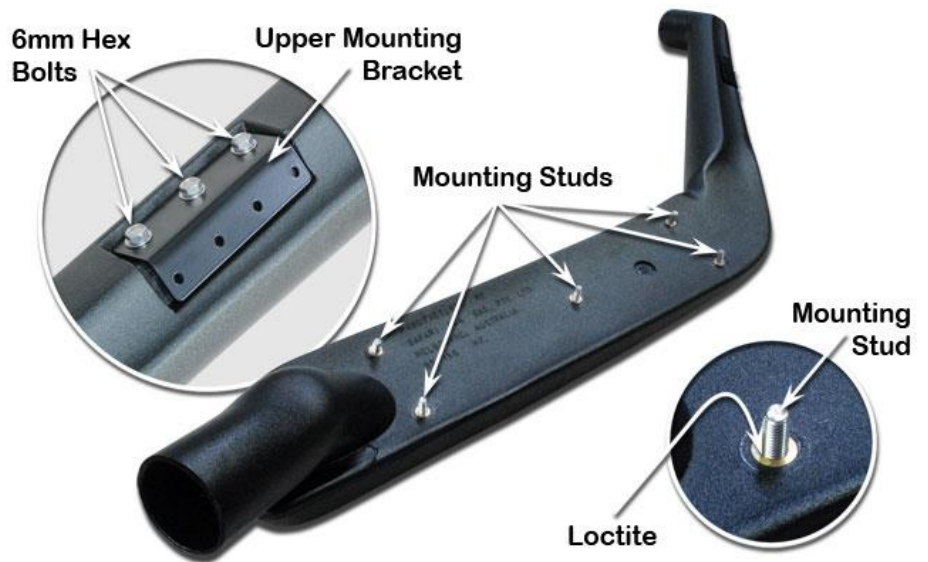




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Install the upper mounting bracket (Item 3) to the snorkel body (Item 1) with hex bolts (Item 4),

Apply Loctite to each of the five mounting studs (Item 7) and install the studs finger tight into the snorkel body mounting inserts (Item 1).



8

Apply a strip of masking tape along the 'A' pillar and install the snorkel body (Item 1) onto the guard panel.

With the snorkel body correctly positioned, mark around the outside edge of the upper mounting bracket (Item 3) onto the masking tape.



9

Remove the snorkel body (Item 1) from the guard panel and remove the upper mounting bracket (Item 3) from the snorkel body.

Position the upper mounting bracket onto the 'A' pillar and align with the previous markings on the masking tape. Mark the four mounting holes with a felt tip pen.

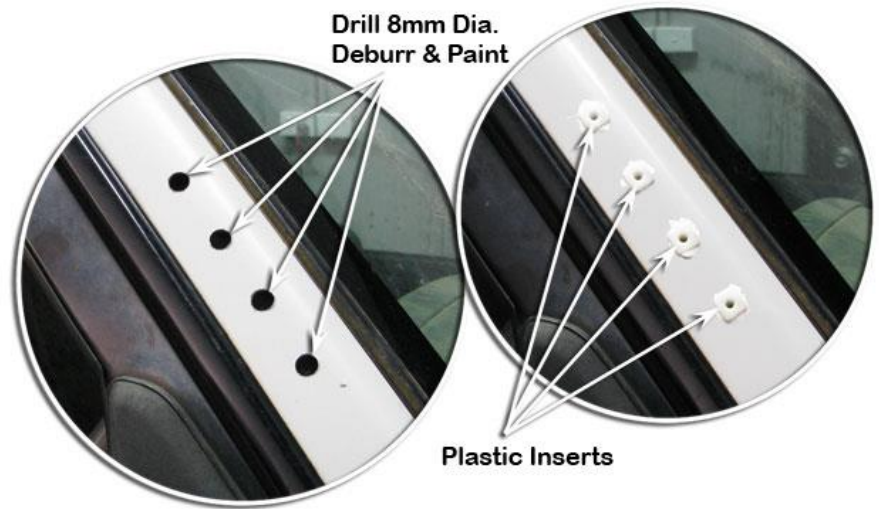


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Drill a pilot hole in the centre of each marked hole position and use a step drill to drill to 8mm diameter.

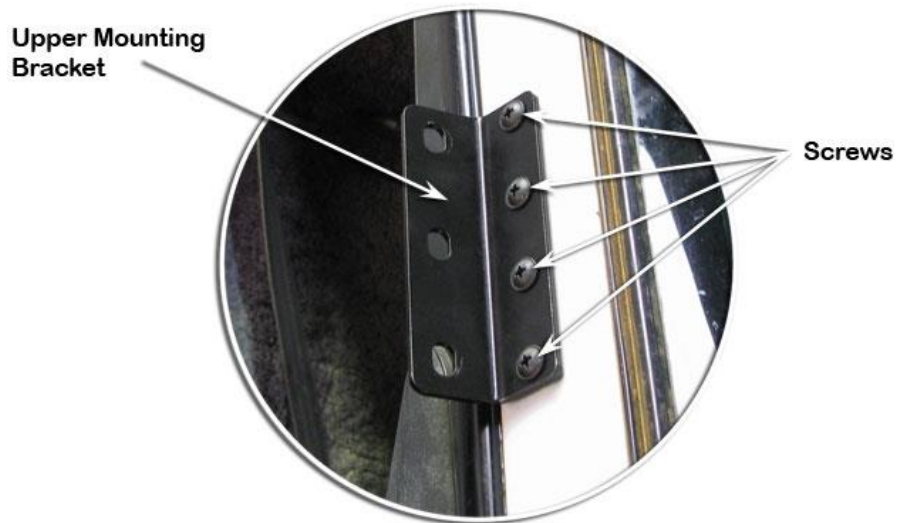
Deburr and paint holes.

Install the four plastic inserts (Item 6) into the upper mounting bracket holes in the 'A' pillar.



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Install the upper mounting bracket (Item 3) to the 'A' pillar with four self tapping screws (Item 5).

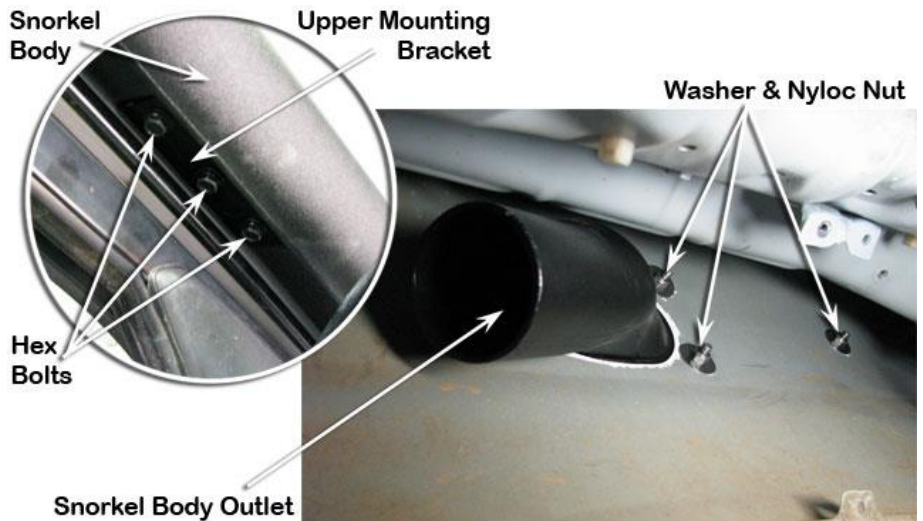


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Install the snorkel body (Item 1) to the guard panel.

Fasten the snorkel body to the guard panel with body washers (Item 8) and Nyloc nuts (Item 9).

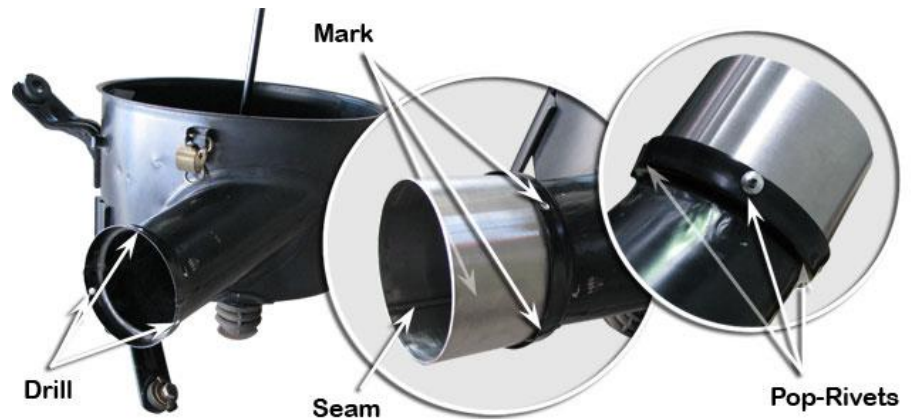
Fasten the snorkel body (Item 1) to the upper mounting bracket (Item 3) with three hex bolts (Item 4).



- 13** Mark and drill three 4.0mm diameter holes approximately 120 deg apart around the air cleaner entry flange as shown.

Insert the stainless steel joiner (Item 12) into the air cleaner inlet and mark the three hole positions. Remove the joiner and drill the three marked positions to 4.0mm diameter - Note avoid drilling into the joiner's welded seam.

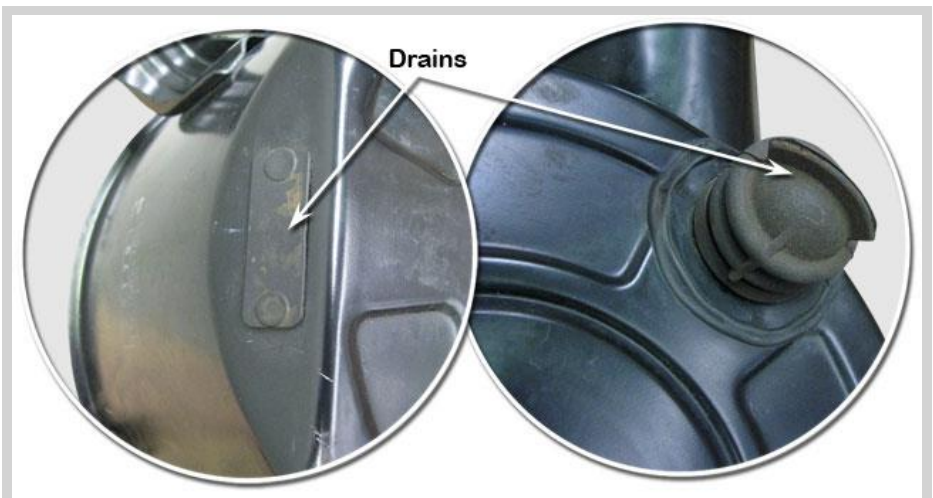
Apply adhesive sealant to the mating surfaces of the joiner and air cleaner inlet. Install the joiner into the air cleaner inlet and align the holes. Secure the joiner in place with three pop-rivets (Item 13).



- 14** **Installer's Option**

The air cleaner housing base/underside has two drain openings that may permit water to enter the air intake.

It is up to the installer to decide whether the drains should be sealed.



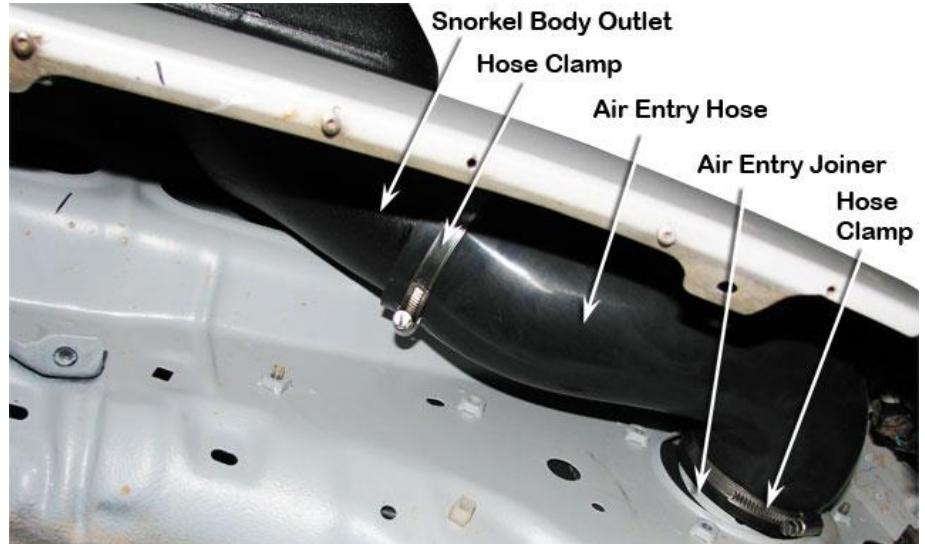
- 15** Install the air cleaner base with the standard mounting hardware. Install the air cleaner element and air cleaner lid. Reconnect the sensor wiring plugs.



- 16** Loosely install a hose clamp (Item 11) over each end of the air entry hose (Item 10).

Install the air entry hose between the snorkel body outlet (Item 1) and the air cleaner entry joiner (Item 12).

Align the hose for best fit and tighten both hose clamps (Item 11).



- 17** Loosely install the black hose clamp (Item 15) to the base of the air ram assembly (Item 2). Install the air ram assembly onto the snorkel body.

Align the air ram assembly and tighten the black hose clamp (Item 15).



- 18** Reinstall the guard liner and any other components that may have been removed in accordance with the factory service manual.

**NB It is the installer's responsibility to ensure all connections are watertight.**