



4X4 ENGINEERING

SS663HF

SAFARI V-SPEC SNORKEL
MITSUBISHI MR TRITON (Nov 2018 onwards)
2.4L Turbo Diesel (4N15 Engine)



26/08/2019

Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	531-133-000	BODY - SNORKEL (SS663HF)	1
2	000-135-800	3 ½" AIR RAM ASSEMBLY	1
3	531-032-000	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	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	530-023-000	ADAPTOR - AIR CLEANER INLET	1
11	000-958-450	POP RIVET - 4.8mm x 21mm	2
12	535-024-000	HOSE - AIR ENTRY	1
13	000-909	CLAMP - HOSE - 80/100mm	1
14	000-910	CLAMP - HOSE - 90/110mm	1
15	000-914/B	CLAMP - HOSE - SIZE 56 (BLACK)	1
16	531-017-000	TEMPLATE - GUARD PANEL	1

Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 150min

Special Tools:

- 121mm Holesaw
- Step Drill
- 5.0mm & 6.5mm Drill Bits
- Pop Rivet Gun
- Sikaflex 227 Adhesive Sealant
- 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 template (Item 16) are correct.

1

Remove the following in accordance with the factory service manual:

- Air Cleaner Assembly
- RHS Mud Flap
- RHS Guard Liner

2

Remove and discard

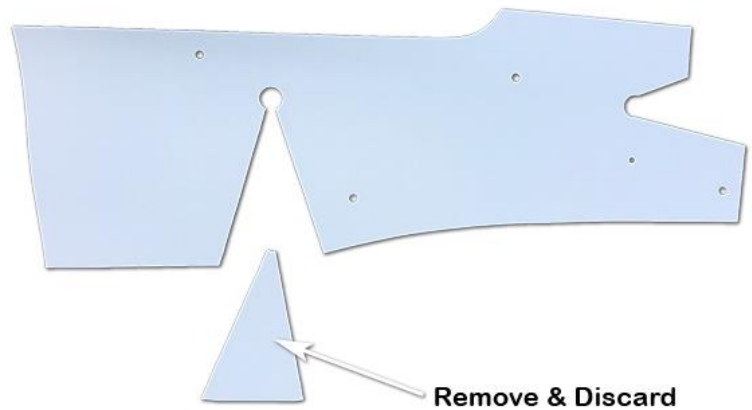
- Air Deflector



Remove & Discard

3

Using a sharp knife remove and discard the perforated section from the guard panel template (item 16) as shown.



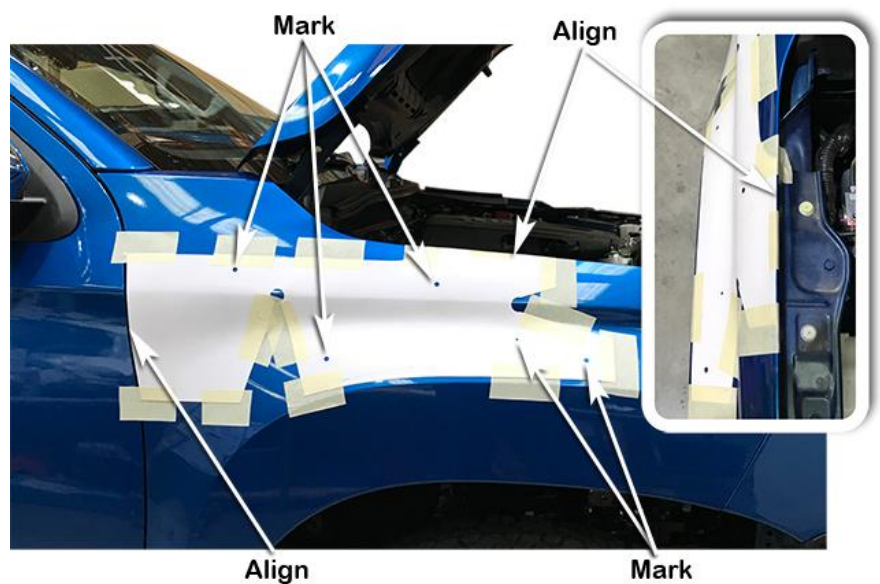
4

Align the guard panel template (Item 16) to the upper and rear edges of the RHS 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.



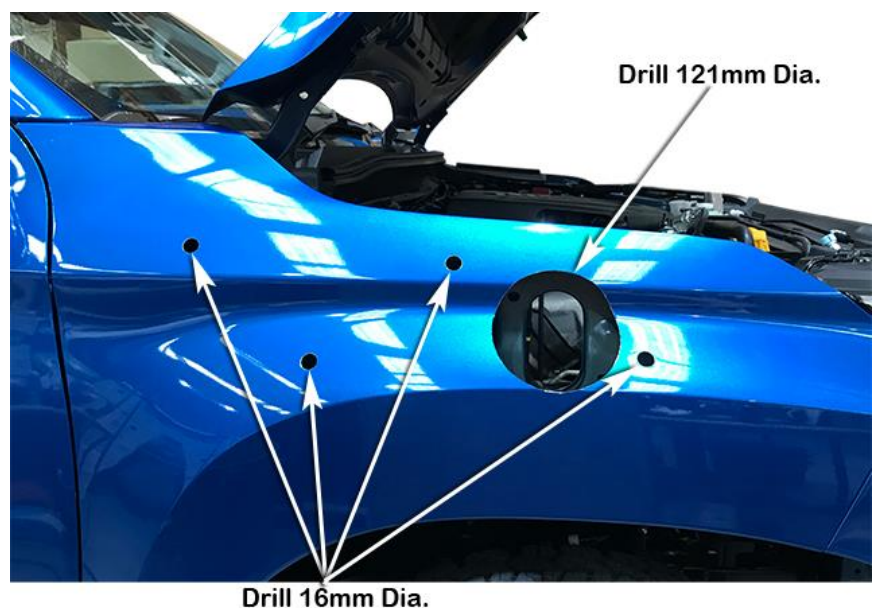
5

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

Use a 121mm diameter hole saw to drill the snorkel body outlet hole.

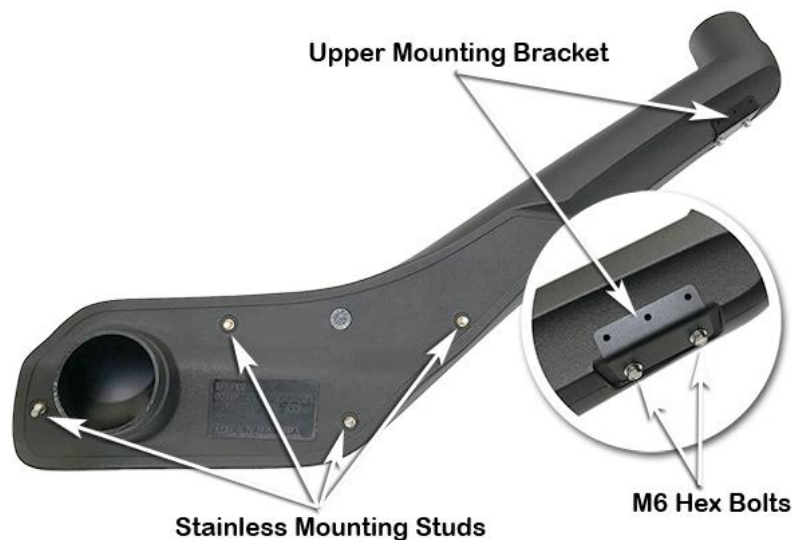
Use a step drill to drill the four mounting holes to 16mm diameter.

Deburr and paint all holes.



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 as shown.



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 on the vehicle, accurately mark the position of the upper mounting bracket (Item 3) onto the masking tape.

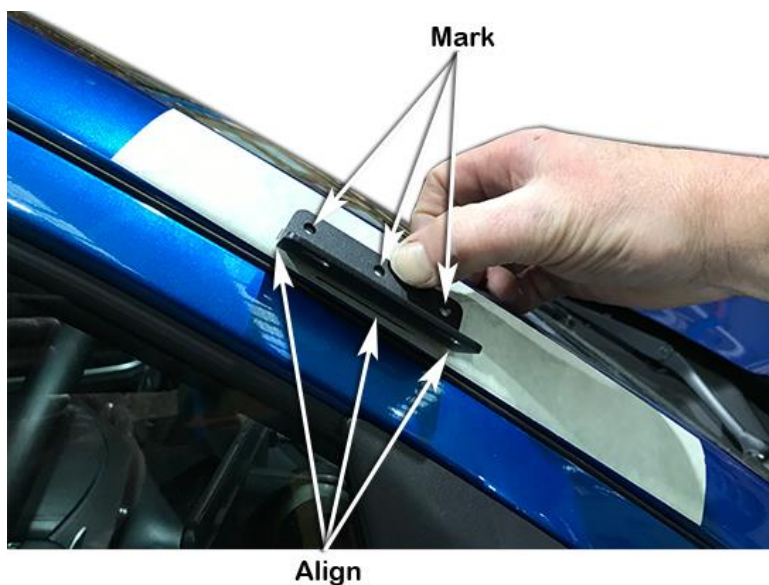
Note: open/close the front door and check the clearance between the door rubber and hex bolts (item 4). If necessary raise the position of the snorkel body on the A-pillar to achieve adequate clearance.



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

Position the upper mounting bracket (Item 3) onto the A-pillar and align the bracket with the marked bracket outline.

Mark the three mounting hole positions with a felt tip pen.



9

Drill a pilot hole at each of the three marked positions, drilling through both the A-pillar panel and inner panel.

Drill both the A-pillar panel and inner panel holes to 6.5mm.

Drill the three A-pillar panel holes to 8mm diameter with a step drill or 8mm drill bit.

Deburr and paint holes.

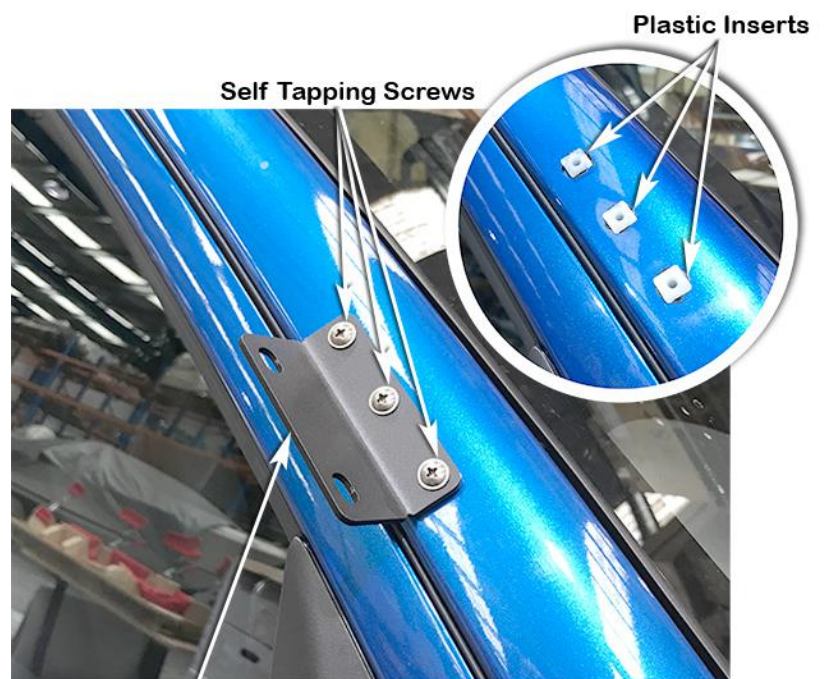


Drill A-Pillar Panel 8mm, Inner Panel 6.5mm

10

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 self-tapping screws (Item 5).



Upper Mounting Bracket

11

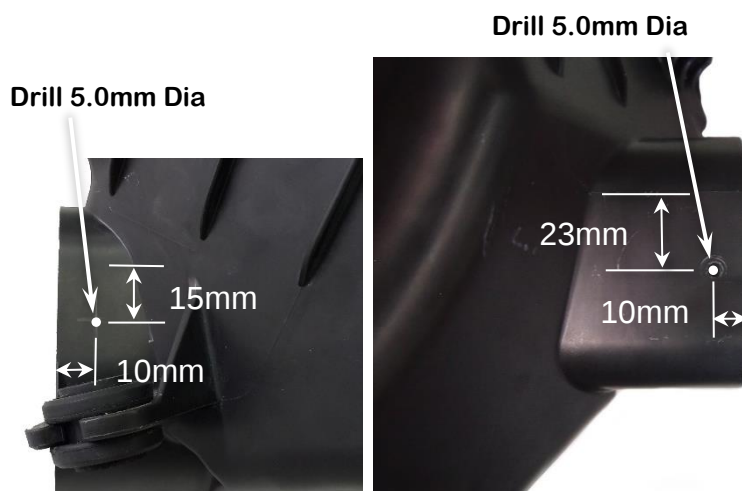
Remove and discard the air intake duct from the air cleaner base.



12

Measure and mark two hole positions on the air cleaner base inlet approximately 10mm in from the air cleaner base inlet and 23mm (long side) and 15mm (short side) down from the radius of the inlet as shown.

Drill the two marked hole positions using a 5.0mm drill bit.



13

Install the air cleaner inlet adaptor (item 10) into the air cleaner base inlet, drill the two 5.0mm holes through the air cleaner base and into the air cleaner inlet adaptor.

Remove the adaptor and deburr the holes.



14

Apply adhesive sealant to the inside of the air cleaner base inlet and the outside of the air cleaner inlet adaptor (item 10).

Install the air cleaner inlet adaptor into the air cleaner base inlet.

Using the pop rivets (item 11) secure the inlet adaptor to the air cleaner base.

Apply sealant over the pop rivets to seal the pop rivets.

Clean-up excess sealant to ensure a neat finish.



INSTALLER OPTION :

The air cleaner base contains a drain valve as shown. The drain valve can permit water to enter the air intake.

Safari advises that the drain valve should be sealed to ensure a watertight installation.

Drain Valve



Squashing the end of the air entry hose (item 12) inwards, install the air entry hose through the hole in the inner guard panel from the engine bay side.

Loosely install the 80/100mm hose clamp (item 13) onto the end of the air entry hose inside the engine bay and the 90/110mm hose clamp (item 14) to the snorkel end of the air entry hose.



Re-install the air cleaner base, guiding the air cleaner inlet adaptor into the air entry hose, fasten the air cleaner housing using standard mounting bolts.

80/100mm Hose Clamp



Air Cleaner Base

Carefully install the snorkel body (Item 1) to the guard panel, align the snorkel body to 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).

Snorkel Body

M8 Body Washers & Nyloc Nuts



Hex Bolts

Align the air entry hose (item 12) for best fitment (*Ensure the air entry hose is installed hard up against the shoulder of the snorkel body outlet*), correctly position the hose clamps at either end of the air entry hose and tighten.

80/100mm Hose Clamp



90/110mm Hose Clamp

Install the black hose clamp (Item 15) loosely over 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).



Install the guard liner, mud flap, air cleaner element, air cleaner lid, reconnect sensor wiring and any other items that may have been removed during the snorkel installation process.

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