SS860HF SAFARI V-SPEC SNORKEL

Suzuki Grand Vitara
JTD94V 2.7L V6 Petrol (H27A Engine)
JTD44V 1.9L DDiS Diesel (F9Q Engine)



22/4/2010

Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	945-133-000	BODY - SNORKEL (SS860HF)	1
2	000-135-400	3" AIR RAM ASSEMBLY	1
3	945-032-000	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 - S/S - 8mm x 1.25 x 25mm	5
8	000-311-300	WASHER - BODY - S/S - 8mm x 32mm	5
9	000-205-300	NUT - NYLOC - S/S - 8mm x 1.25mm	5
10	945-024-000	HOSE - CONNECTING	1
11	945-025-300	PLATE - CLAMPING	1
12	000-958-650	POP RIVET - 4.8mm x 28.45mm - TRI-FOLD	5
13	000-907	CLAMP - HOSE - 60/80mm	1
14	945-025-000	ADAPTOR - 70mm OD x 50mm LONG - S/S	1
15	945-024-200	HOSE - AIR ENTRY	1
16	000-987-360	CABLE TIE - 4.5mm x 360mm LONG	1
17	000-908	CLAMP - HOSE - 70/90mm	2
18	000-918/B	CLAMP - HOSE - No. 48 (BLACK)	1
19	945-017-000	TEMPLATE – GUARD PANEL	1

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Installation Guide

1

Fitment to:
- Right Hand Side

Fitting Time:
- 150min

Special Tools:
- 98mm hole saw
- Body saw (reciprocating)
- Step drill
- Pop-rivet gun
- Heat gun
- Loctite 243 (thread lock)
- Sikaflex 227 (adhesive sealant)
- Touch-up paint
- Masking Tape
- Prep-wash

Prior to commencing the installation, it is the installer's responsibility to verify that all components and particularly the template (Item 19) are correct.

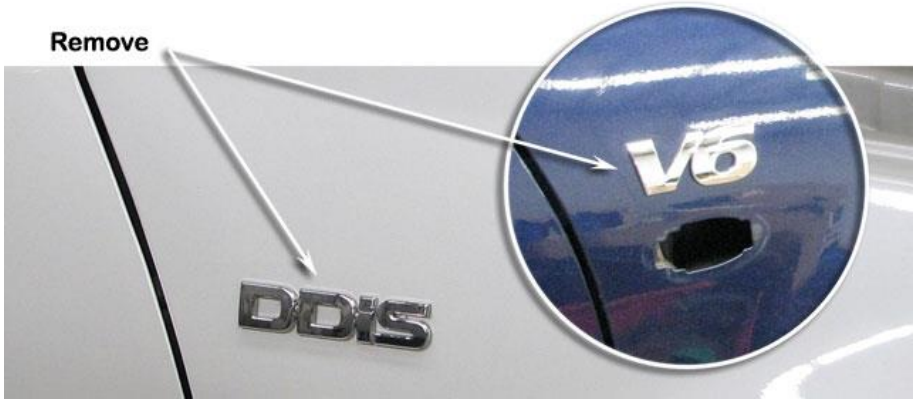
2

Remove the following in accordance with the factory service manual.

- RHS guard liner
- RHS guard mounted indicator
- Air cleaner housing

3

Use the heat gun to carefully remove the DDiS/V6 badge from the guard panel. Clean any adhesive residue from the guard panel with prep-wash or similar solvent.



4

Remove and discard the air intake duct and boom bottle.

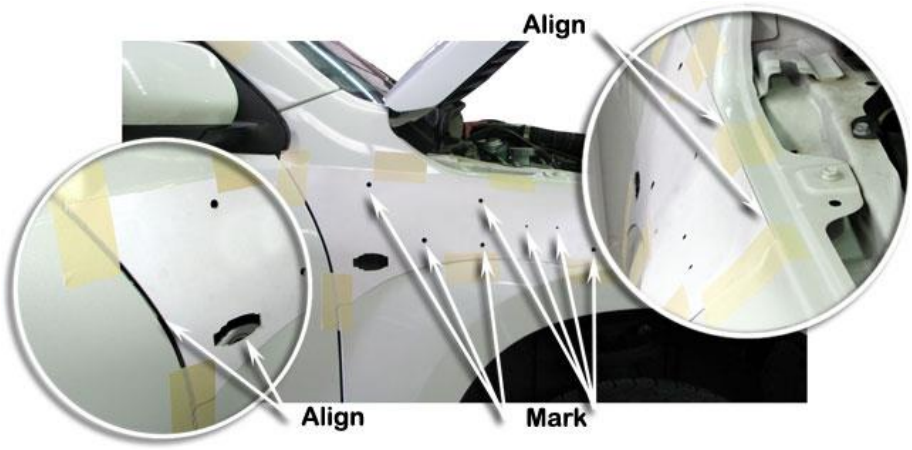


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5 Align the template (Item 19) to the rear edge of the guard panel, to the upper edge of the guard panel as shown and with the indicator hole. Use masking tape to hold the template in position.

With the template correctly aligned on the guard panel, use a felt tip pen to mark all hole positions.

Remove the Template.



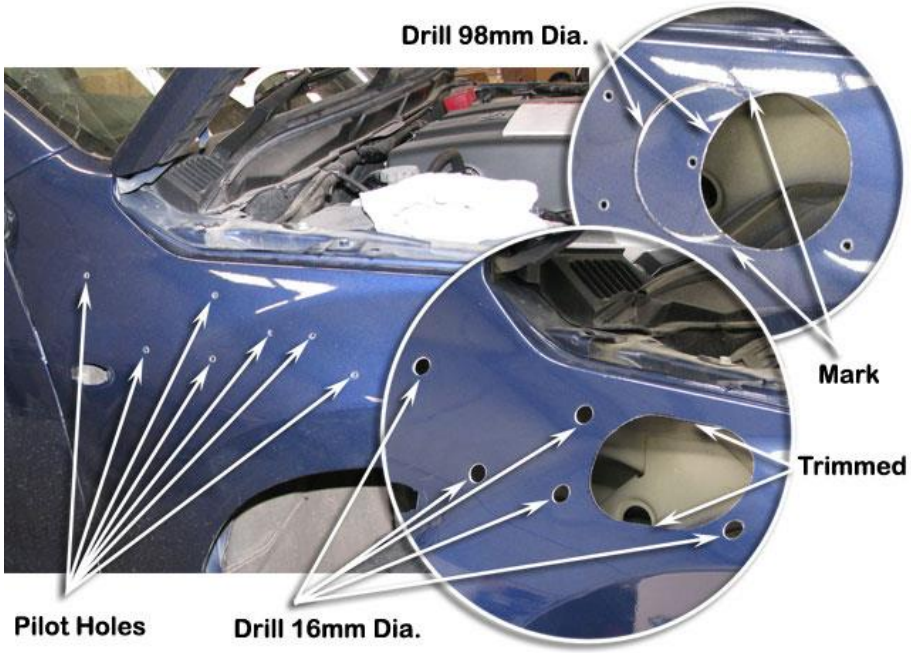
6 Drill a pilot hole for each marked hole position.

Use a 98mm diameter hole saw to drill the snorkel body outlet hole positions. Ensure that the hole saw is square to the guard panel at all times whilst cutting.

Mark a line at the top and bottom between the two 98mm diameter holes. Use a body saw to trim away the marked section of panel between the two holes .

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

Deburr and paint holes to prevent rust.



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7

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

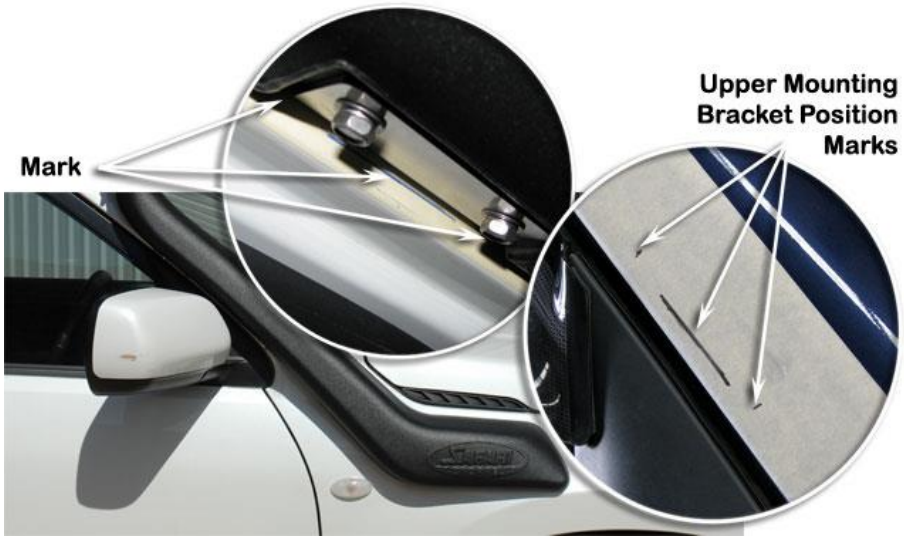
Apply Loctite 243 to each of the stainless steel mounting studs (Item 7) and install the studs finger tight into the snorkel body inserts.



8

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 outline of the upper mounting bracket onto the masking tape on the A-Pillar.



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

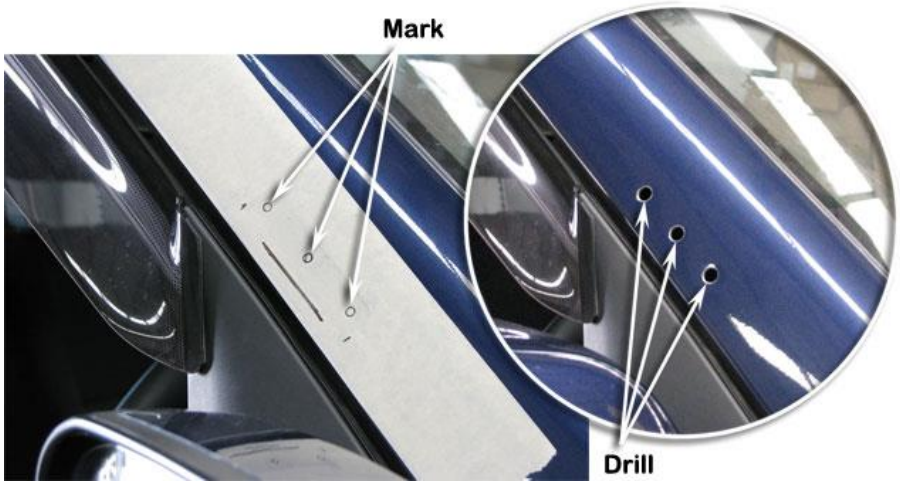
Position the upper mounting bracket (Item 3) onto the A-Pillar and align the bracket with the previously marked bracket outline.

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

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.

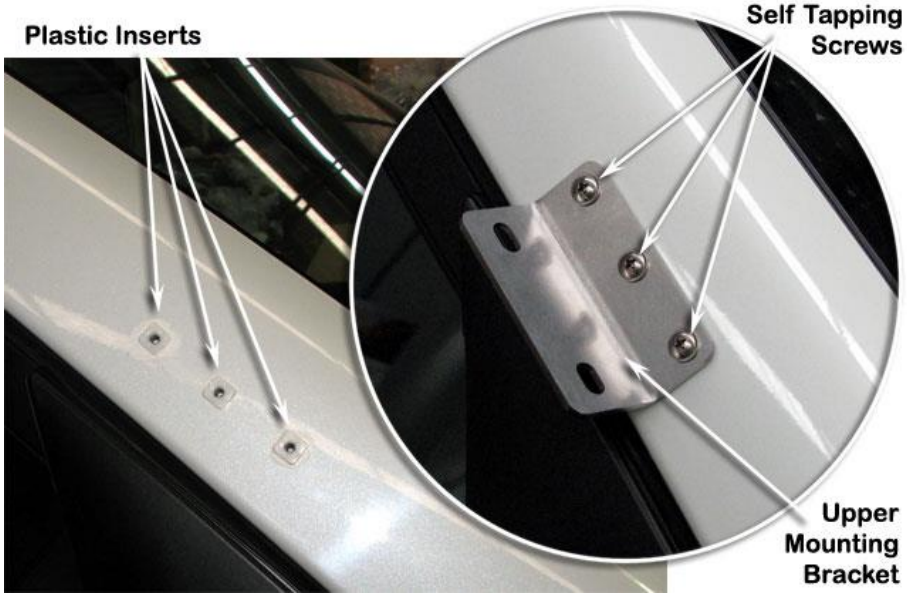
NOTE: Extreme care must be taken when drilling the A-Pillar panel. The internal A-Pillar reinforcement can deflect drill bit.

Deburr and paint the holes.



10 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)



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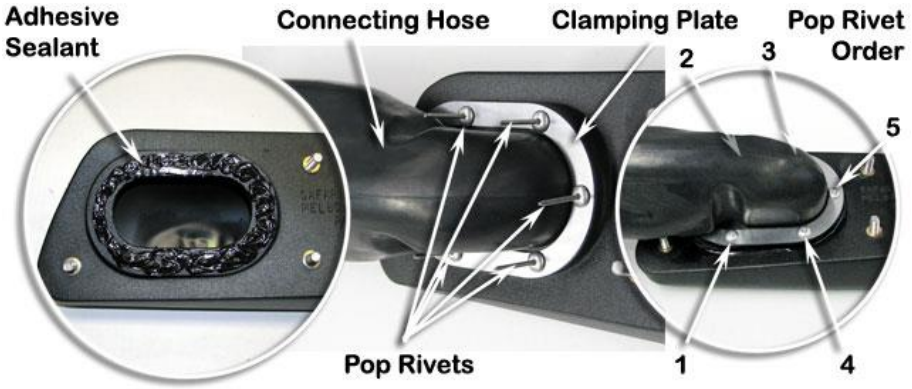
11 Insert the connecting hose flange (Item 10) through the clamping plate (Item 11) and ensure that all five holes on each component are correctly aligned.

Apply adhesive sealant to the snorkel body outlet flange (Item 1).

Install the connection hose to the snorkel body outlet flange as shown and insert all five pop rivets (Item 12) through the clamping plate, connecting hose flange and into the snorkel body outlet flange.

Secure the pop rivets (Item 12) with the pop rivet gun in the sequence shown to complete the installation of the connection hose to the snorkel body outlet.

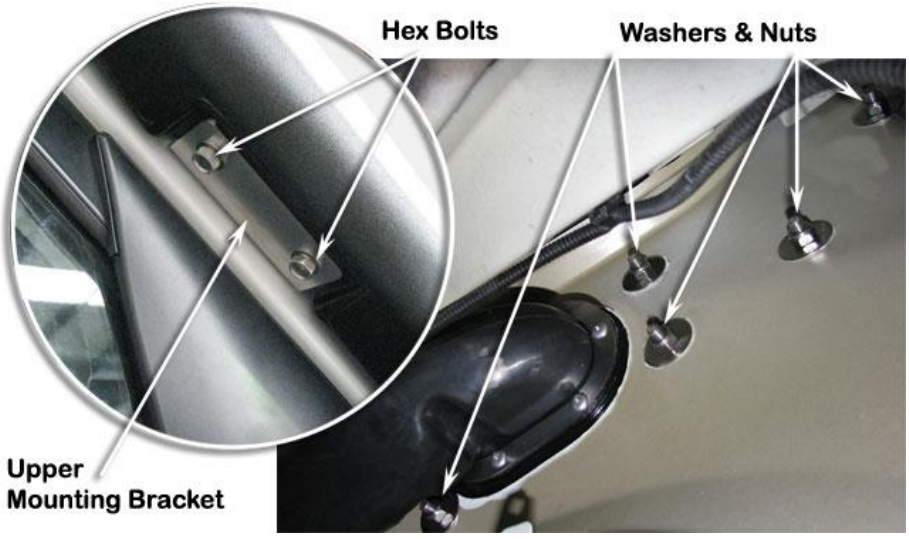
Wipe any excess adhesive sealant away.



12 Insert the connection hose through the hole in the guard panel and align the snorkel body to the guard panel and the 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 6mm x 14mm hex bolts (Item 4).



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13

Install the adaptor (Item 14) into the outlet end of the connecting hose (Item 10) and leave 25mm of the adaptor protruding.

Secure with a 60/80mm hose clamp (Item 13).

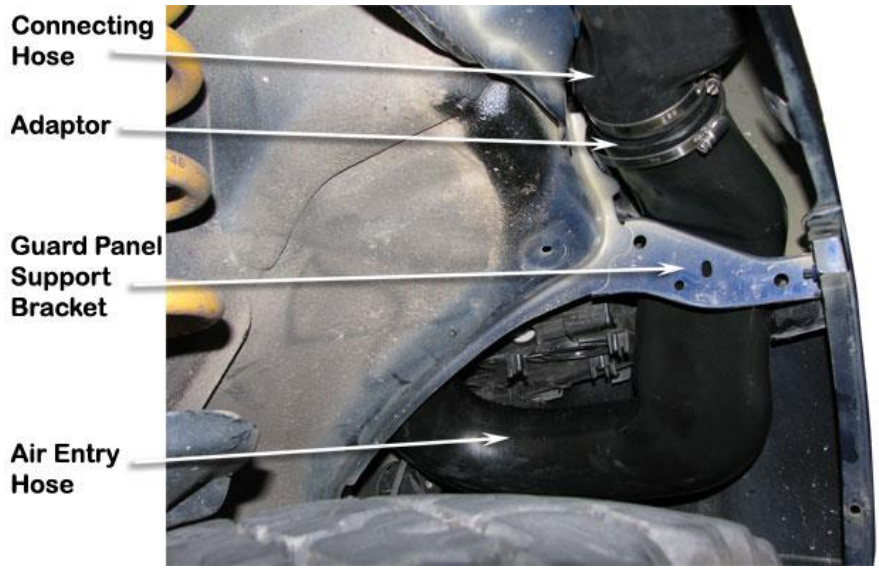
Note orientation of hose clamp.



14

Install the air entry hose (Item 15) as shown. Place a 70/90mm hose clamp (Item 17) loosely over the end of the air entry hose (Item 15) and install the hose over the adaptor (Item 14).

HINT: Spray silicon or similar lubricant over the air entry hose to assist with sliding over the guard panel support bracket.



15

INSTALLER OPTION

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

It is up to the installer to decide whether the drain hole should be sealed. To seal the drain hole, remove the drain valve and apply a generous amount of adhesive sealant into the drain hole.

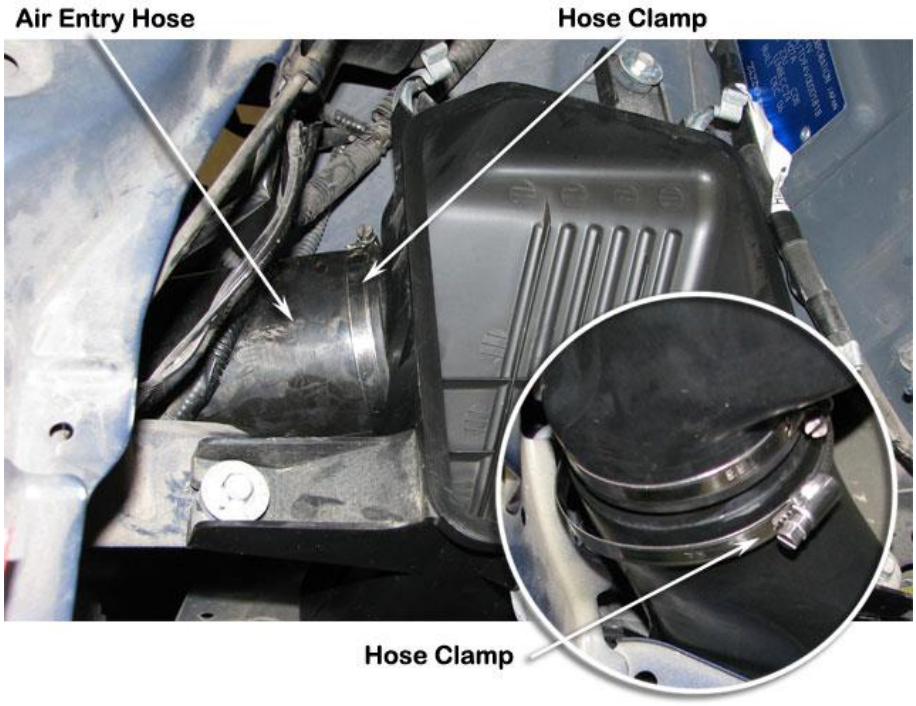


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16 Install a 70/90mm hose clamp (Item 17) loosely over the air entry hose (Item 15).

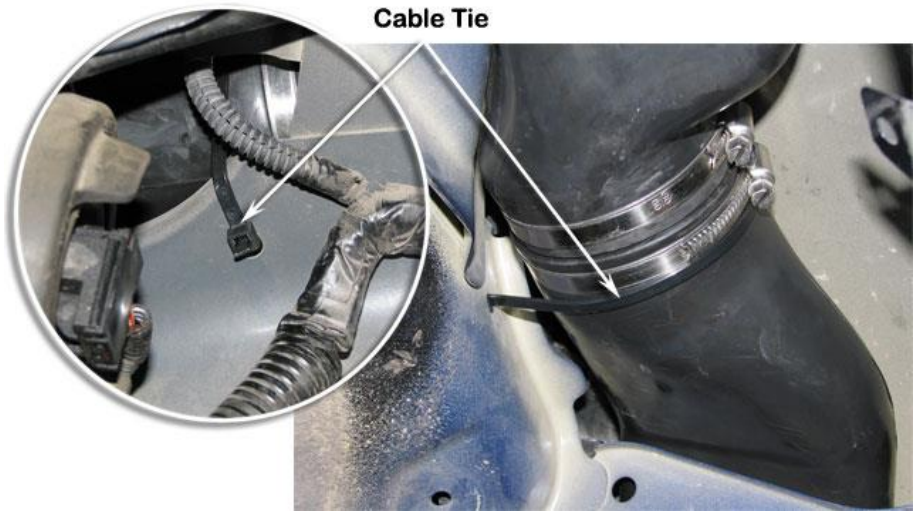
Install the air cleaner housing base whilst guiding the air entry hose (Item 15) over the air cleaner base entry snout. Secure the air cleaner housing base into position with the standard mounting hardware.

Ensure that the air entry hose (Item 15) is positioned correctly and secure with the two 70/90mm hose clamps (Item 17) at each end of the air entry hose.



17

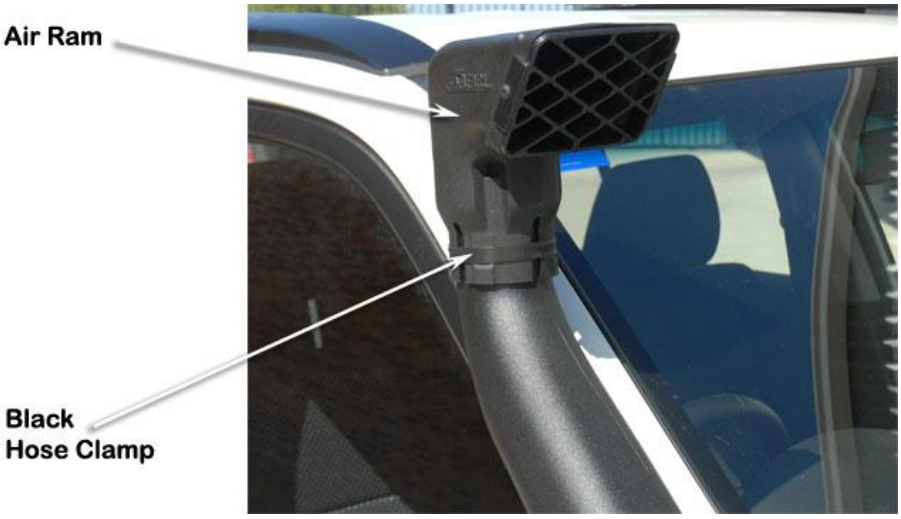
Support the connection hose and air entry hose assembly in position with a 360mm long cable tie (Item 16) as shown.



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18 Loosely install the black hose clamp (Item 18) 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 18).



19 Install the genuine air cleaner element, air cleaner housing lid and any sensor wiring that may have been disconnected during the installation process.

Install the RHS guard mounted indicator lamp and connect wiring.

Install RHS guard liner and any other items that may have been removed during the snorkel installation process.

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

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