



ARMAX

SS450HP

SAFARI ARMAX SNORKEL

TOYOTA 4RUNNER Gen5

4.0L V6 DOHC VVT-i Gasoline (1GR-FE Engine)



01/12/2016

Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	362-133-000	BODY - SNORKEL (SS450HP)	1
2	000-135-950	4" AIR RAM ASSEMBLY	1
3	362-032-000	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX - 6mm x 1.0 x 14mm (SEMS) - S/S	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	6
8	000-311-300	WASHER - BODY - 8.4mm x 32mm - S/S	6
9	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	6
10	362-024-000	HOSE - AIR ENTRY	1
11	000-1911	CLAMP - HOSE - 100/120mm - S/S	1
12	000-1913	CLAMP - HOSE - 120/140mm - S/S	1
13	000-1931/B	CLAMP - HOSE - No. 64 (BLACK)	1
14	362-017-000	TEMPLATE - FENDER	1



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4.0L V6 DOHC VVT-i Gasoline (1GR-FE Engine)

Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 150min

Special Tools:

- Body saw (reciprocating)
- Step drill
- Files / Grinder
- Touch-up paint
- Masking tape
- Loctite 243 (thread lock)

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

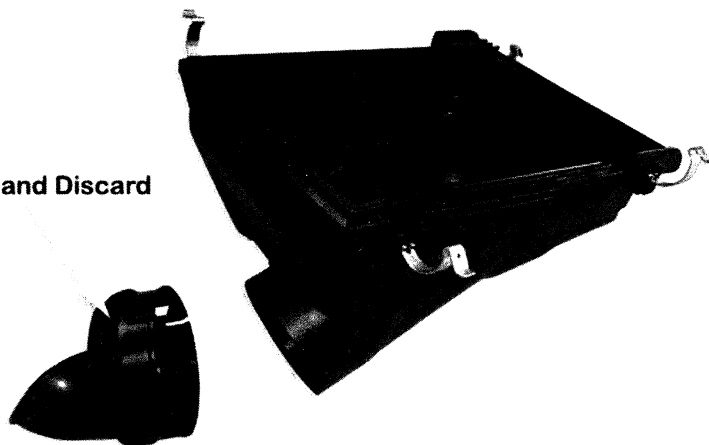
1

Remove the Right Front Fender Liner and the Air Cleaner Assembly in accordance with the factory service manual.

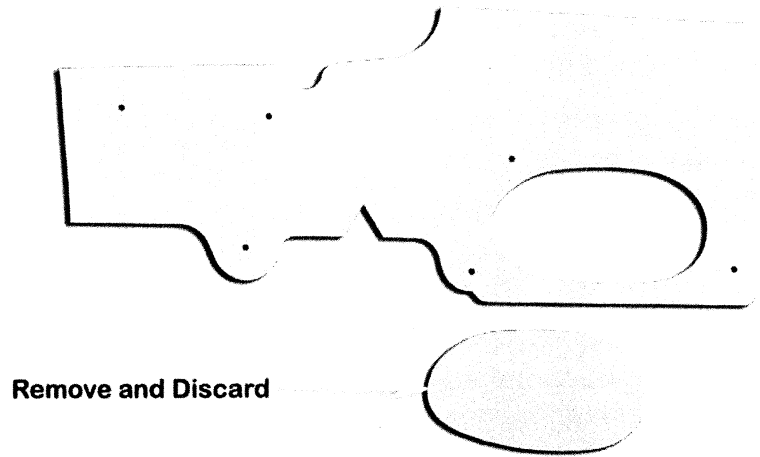
2

Remove and discard the air inlet duct.

Remove and Discard



Remove and discard the perforated section from the fender template (item 14) as shown.

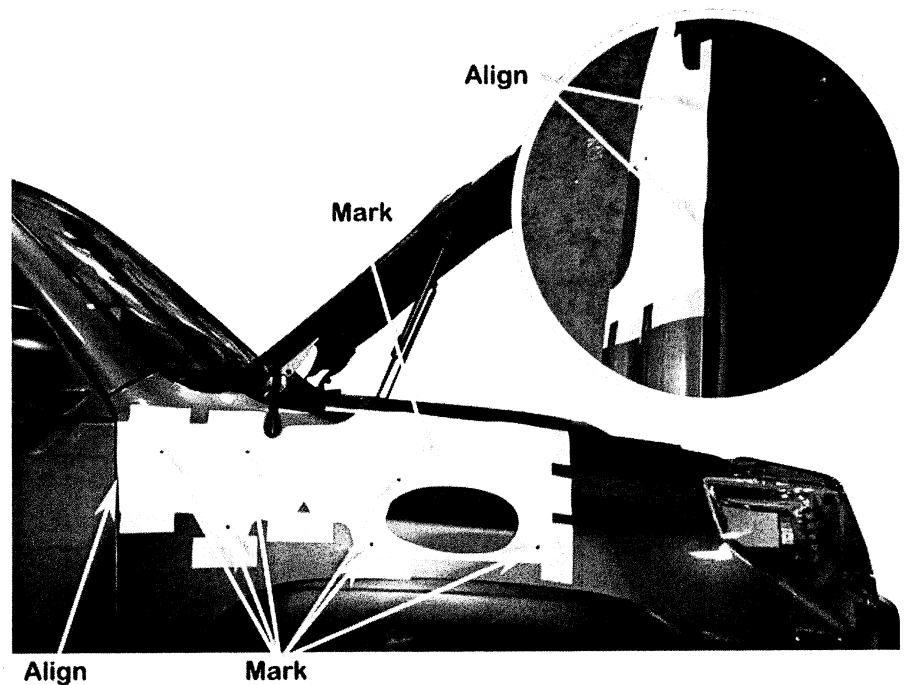


Align the fender template (Item 14) to the upper and rear edges of the right hand fender as shown.

Tape the template to the fender with masking tape.

Mark all hole positions and the cut out section with a felt tip pen.

Remove the template.



Prior to drilling any holes in the fender, place a strip of masking tape along the join of the fender flare to the fender to prevent any metal filings being trapped between the flare seal and fender.

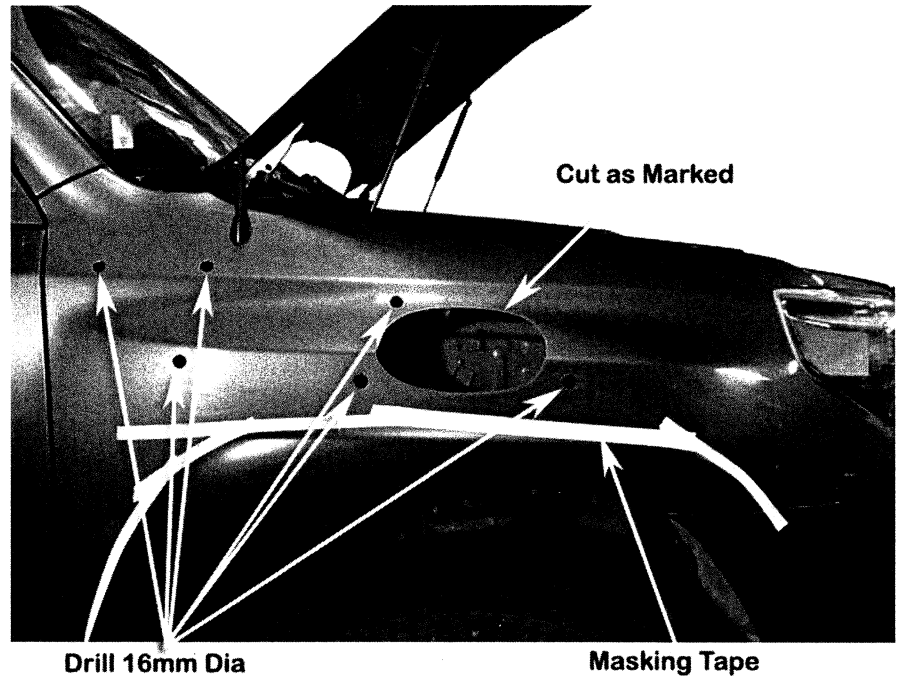
Drill a pilot hole for each of the marked locations.

Using the step drill, drill the 6 mounting hole positions to 16mm diameter.

Drill a starting hole for the body saw, using the body saw cut the main hole in the fender as marked from the template cut out in step 4.

Deburr and paint holes.

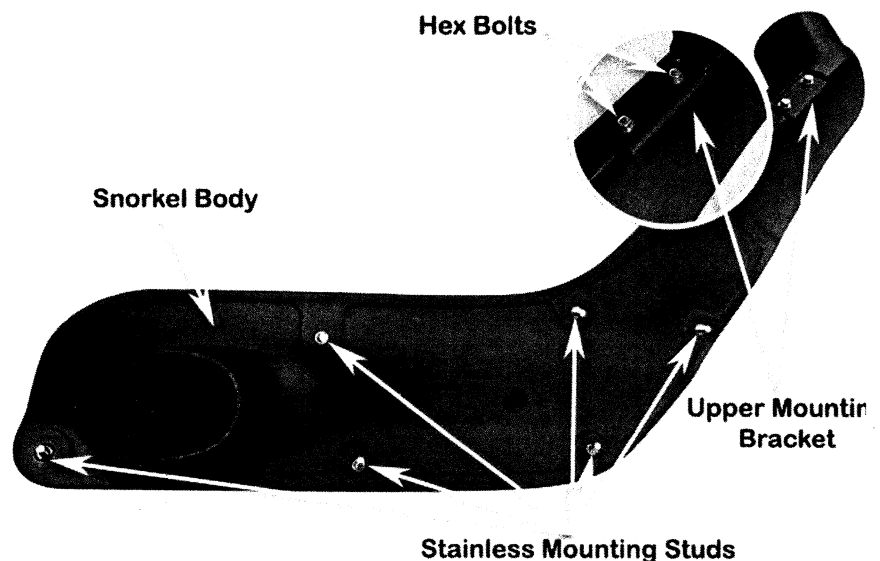
Remove the masking tape from the fender and fender flare.



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).

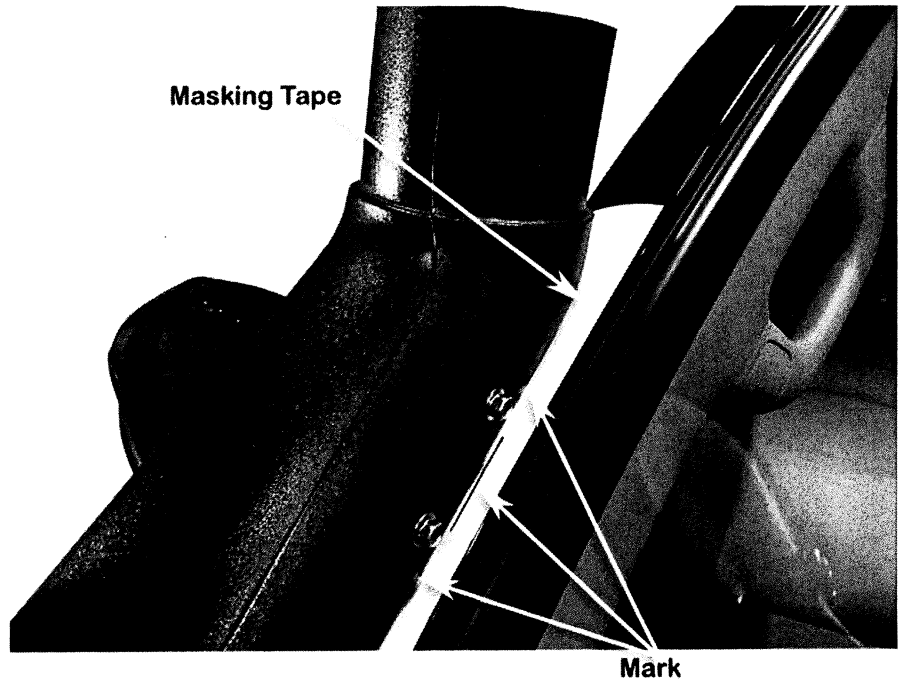
Install the studs finger tight into the snorkel body (item 1) mounting inserts as shown.



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

Carefully install the snorkel body (Item 1) to the fender.

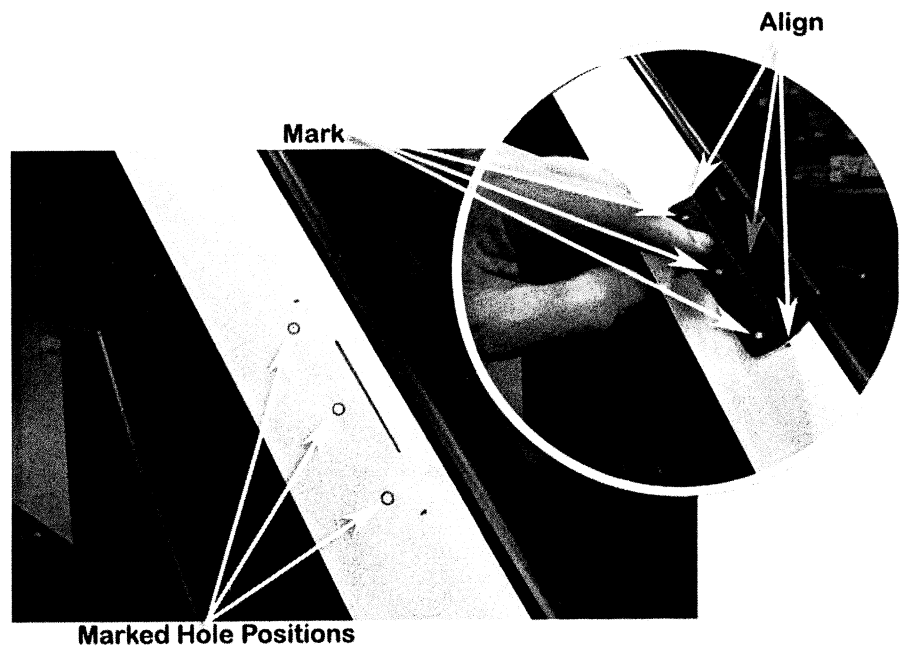
With the snorkel body correctly positioned, mark the outline of the upper mounting bracket (Item 3) onto the masking tape.



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 onto the A-Pillar and align the bracket with the marked bracket outline.

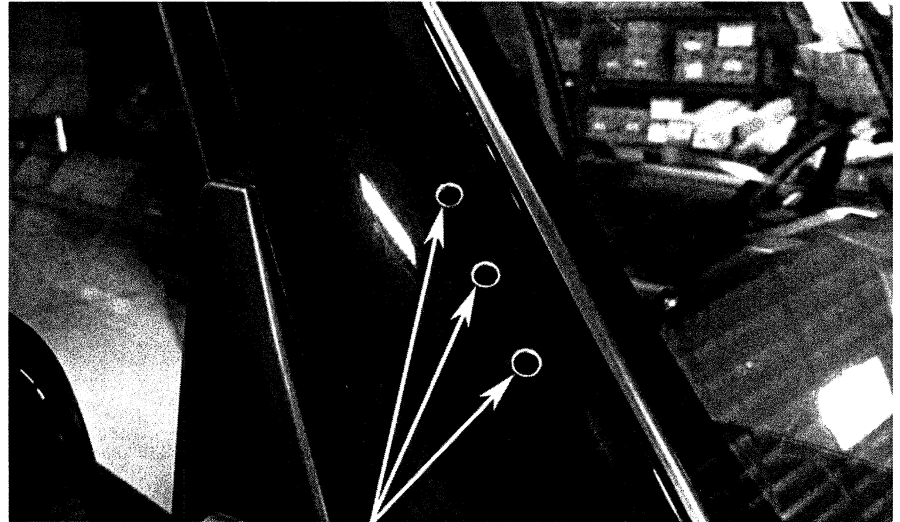
Mark the three mounting hole positions with a felt tip pen.



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

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

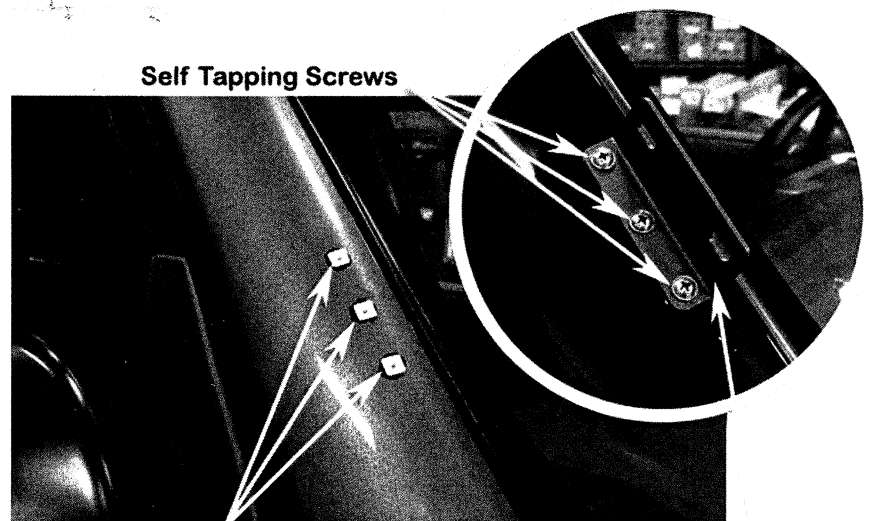
Deburr and paint holes.



Drill 8mm Dia

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).

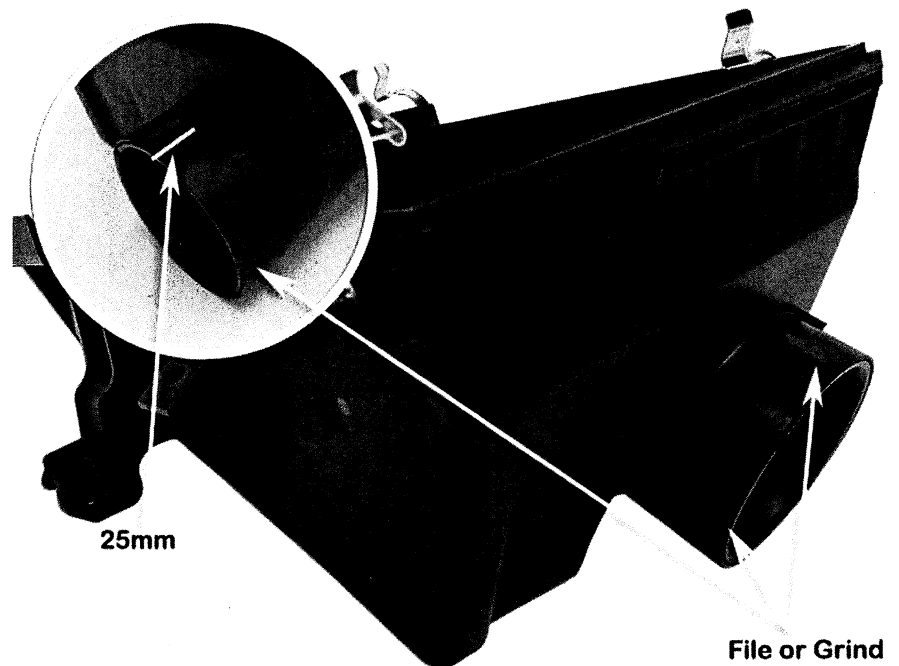


Plastic Inserts

Upper Mounting Bracket

Using a file or grinder, shorten the locating tag by 25mm from the air cleaner base inlet as shown.

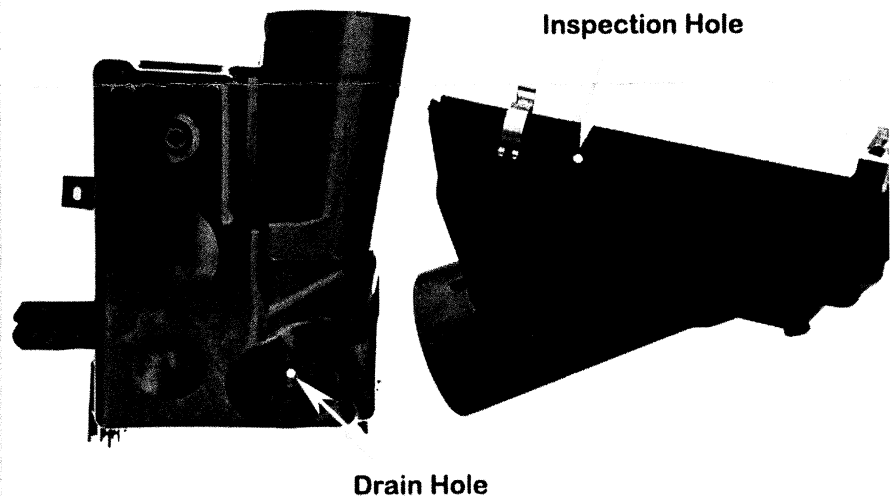
Using a file or grinder, remove the two retaining lugs from the air cleaner base inlet as shown.



INSTALLER OPTION:

The air cleaner base contains a drain hole and an inspection hole as shown. These can permit water to enter the air intake.

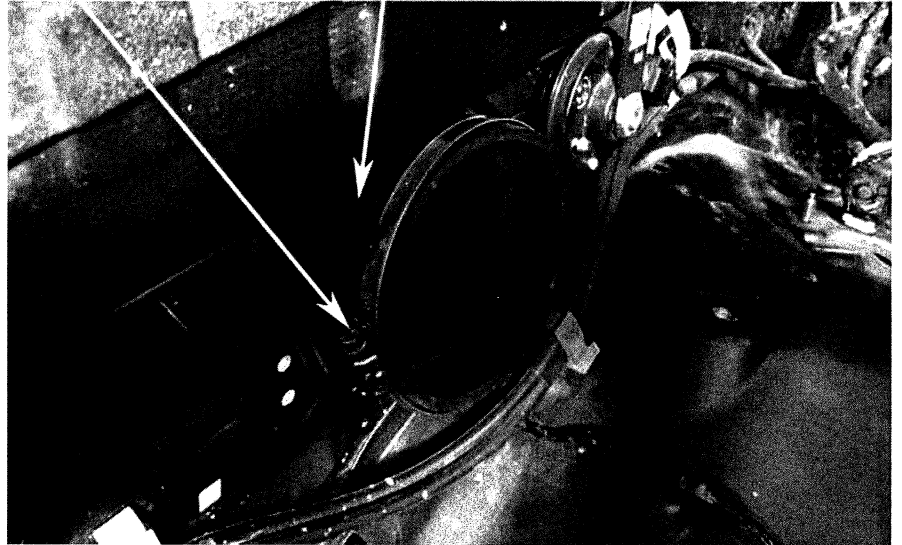
Safari advises that the drain hole and inspection hole should be sealed to ensure a watertight installation.



Install the air entry hose (item 10) through the hole in the inner fender panel.

Loosely install a 100/120mm hose clamp (item 11) over the end of the air entry hose.

100/120mm Hose Clamp Air Entry Hose

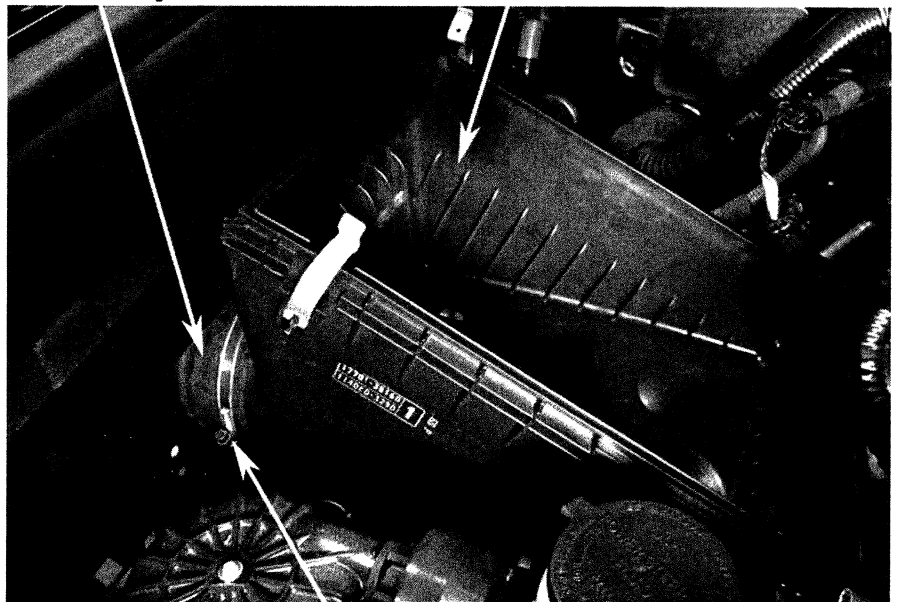


Install the air cleaner base back into position guiding the air cleaner base inlet into the air entry hose (item 10).

Fasten the air cleaner base with the original mounting hardware.

Do not tighten the hose clamp.

Air Entry Hose Air Cleaner Base

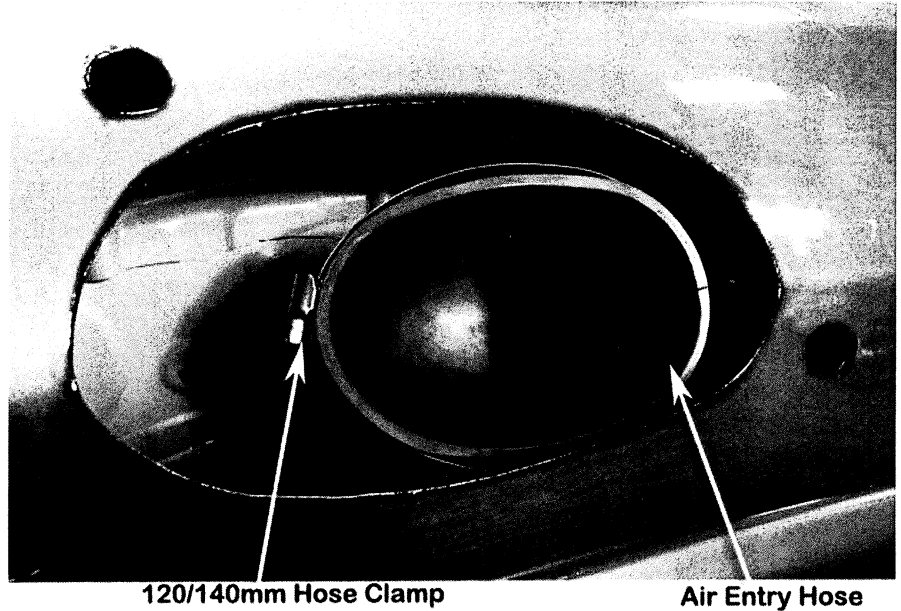


100/120mm Hose Clamp

Carefully shape the 120/140mm hose clamp (item 12) to the oval shape of the air entry hose (item 10), *Note: hose clamp orientation.*

Loosely install the 120/140mm hose clamp (Item 12) onto the air entry hose (Item 10) orientated the hose clamp onto the air entry hose as shown.

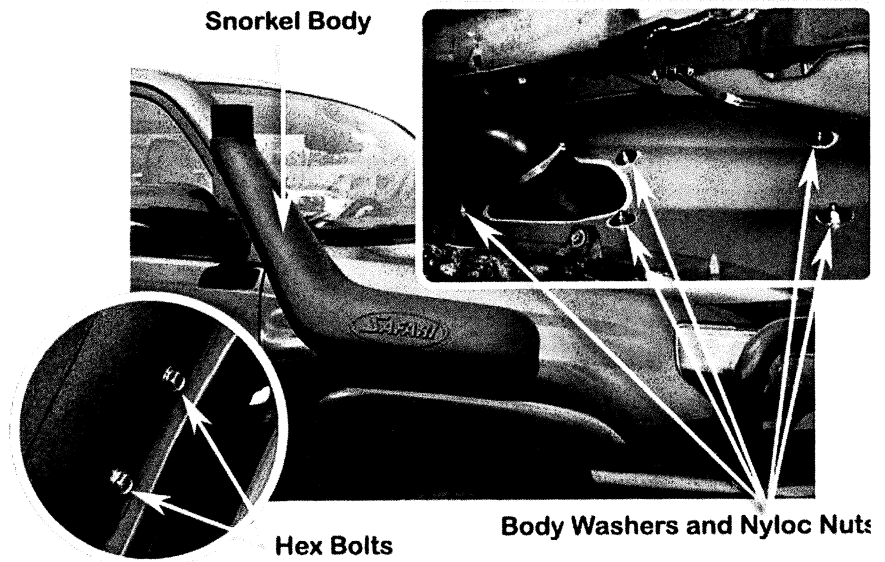
Apply a small amount of lubricant to the inside of the air entry hose.



Carefully install the snorkel body (Item 1) to the fender, guiding the snorkel body outlet snout into the air entry hose (item 10), align the snorkel body to fender and upper mounting bracket.

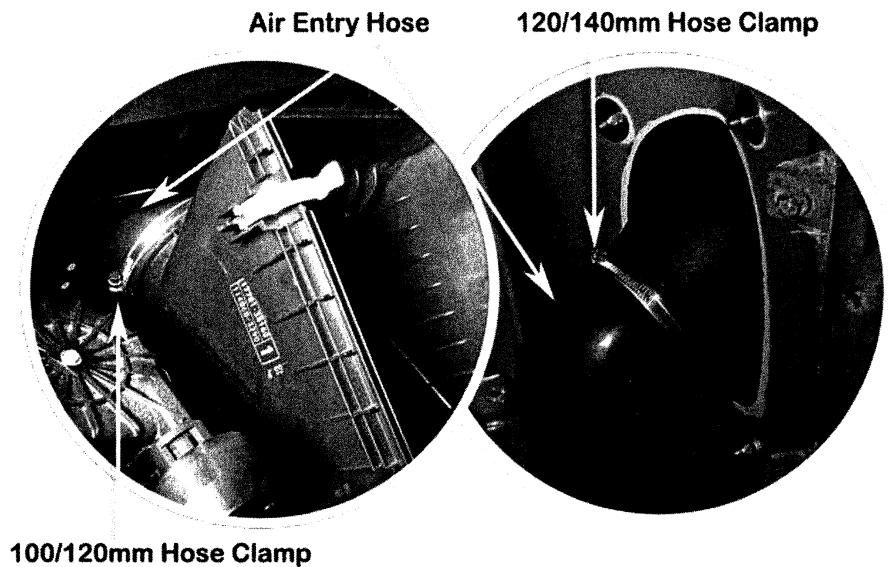
When correctly aligned, fasten the snorkel body to the fender with body washers (Item 8) and nyloc nuts (Item 9).

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



Align the air entry hose for best fitment (*Ensure the air entry hose is installed hard up against the shoulder of the snorkel body outlet*), correctly position the 100/120mm and 120/140mm hose clamps at either end of the air entry hose and tighten the hose clamps.

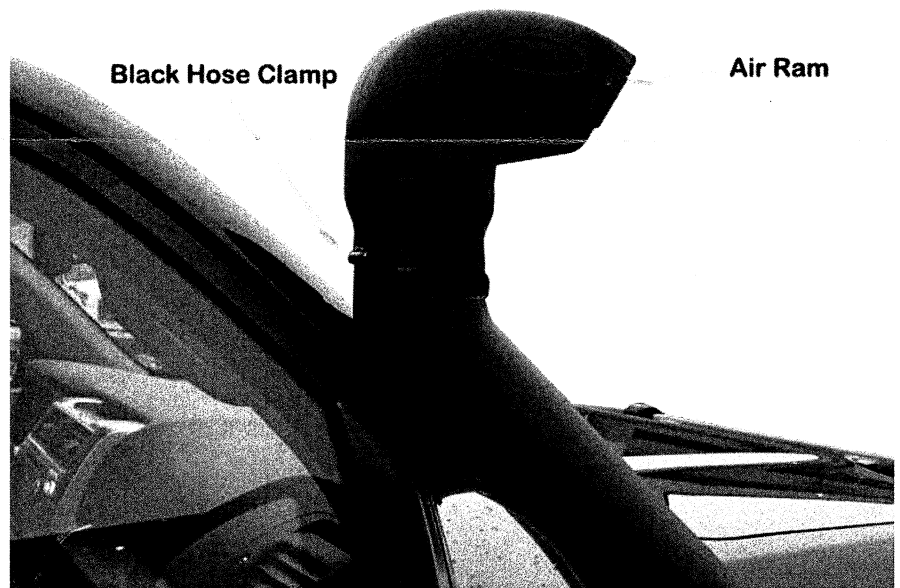
N.B: It may be necessary on vehicles fitted with an Air Pump to remove the plastic cover on the air pump to gain access to the 100/120mm hose clamp.



Loosely install the black hose clamp (Item 13) 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 13).



Re-Install the fender liner, air cleaner element, air cleaner lid, 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.