



SS86HP

SAFARI ARMAX SNORKEL

Toyota LandCruiser 100 series (All Models)
 4.2L 6cyl Diesel (1HZ & 1HD-FTE engines), 4.5L 6cyl
 Petrol (1FZ-FE Engine) & 4.7L V8 Petrol (2UZ-FE Engine)
N.B: Does not fit Left Hand Drive Vehicles



01/09/2020

Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	385-133-600	BODY - SNORKEL (SS86HP)	1
2	000-135-960	4" AIR RAM ASSEMBLY	1
3	385-032-600	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	6
8	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	6
9	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	6
10	385-024-600	HOSE - AIR ENTRY (Flanged)	1
11	385-025-600	PLATE - HOSE SUPPORT (Main)	1
12	385-025-650	PLATE - HOSE SUPPORT (Lower)	1
13	000-958-150	POP RIVET - 4mm x 13mm	12

14	000-1020-300	BOLT - B/H 5.0mm x 0.8 x 12mm	3
15	000-320-350	WASHER - BODY 5mm x 15mm	6
16	000-221-300	NUT - NYLOC - 5.0mm x 0.8mm	3
17	000-1911	CLAMP - HOSE - 100/120mm	1
18	000-1931/B	CLAMP - HOSE - SIZE 64 (BLACK)	1
19	370-704-000	PLATE - BLANK-OFF (A-PILLAR)	1
20	370-435-200	RUBBER GASKET	1
21	385-217-600	TEMPLATE - AIR CLEANER	1
22	385-017-600	TEMPLATE - GUARD PANEL	1



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Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 180 min
- +30 min (Factory Raise Air Intake)

Special Tools:

- Body Saw (Reciprocating)
- Step Drill and Metric Drill Bits
- Loctite 243 (Thread Lock)
- Pop Rivet Gun
- Files / Grinder
- Masking Tape
- Touch-up Paint
- Sikaflex 227 Adhesive Sealant

Prior to commencing the installation, it is the installer's responsibility to verify that all components and particularly the guard panel template (Item 22) are correct.

1

Remove the following in accordance with the factory service manual:

- Air Cleaner Assembly
- RHS Mud Flap
- Inner Guard Liner
- RHS Guard Mounted Indicator Lamp

2a

Standard Toyota Air Intake Vehicle:

Remove and discard the standard Air Entry Duct and Air Entry Flange.



2b

Factory Toyota Raised Air Intake Vehicle:

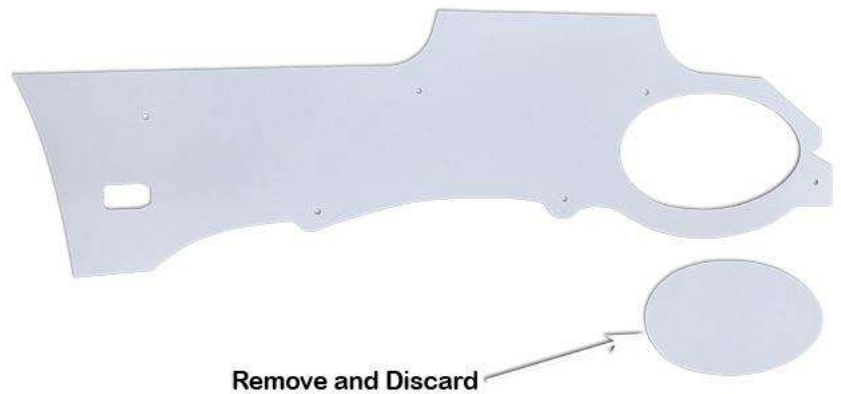
Remove and discard the Factory Toyota Raise Air Intake components (shown).

The two A-pillar mounting bolt assemblies must be retained.



3

Remove and discard the perforated section from the guard panel template (item 22) as shown.



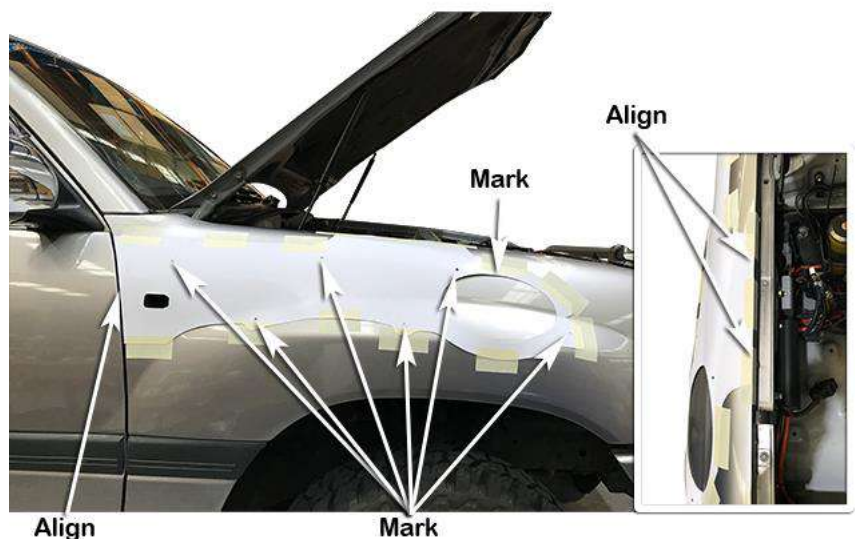
4

Align the guard panel template (Item 22) to the upper and rear edges of the right-hand guard panel as shown (Use the side indicator hole as a guide only).

Tape the template to the guard with masking tape.

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

Remove the template.



5a

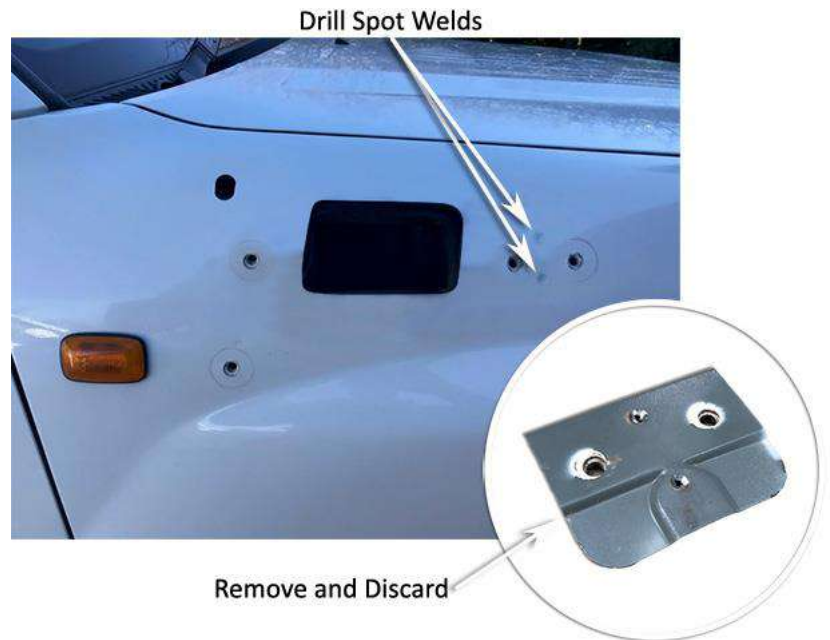
Factory Toyota Raised Air Intake Vehicle only:

The factory front captive mounting nut assembly must be removed.

The assembly is spot welded to the guard panel in two places.

Drill a pilot hole in the centre of each spot welds and drill out the spot welds using a 6.5mm drill bit or spot weld drill bit. Use a small pry bar or flat blade screwdriver to break the spot welds from the guard panel, remove and discard the captive mounting nut assembly.

Deburr holes.



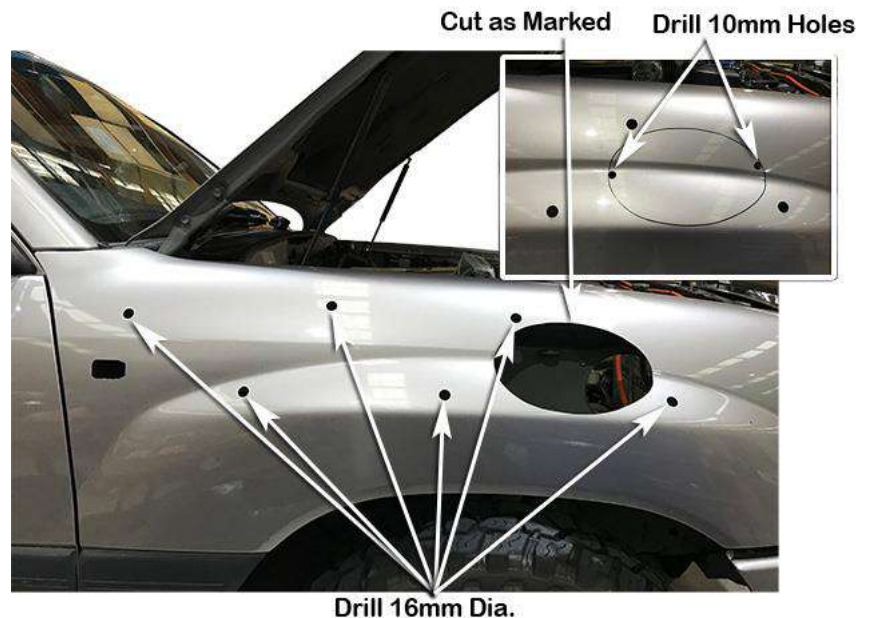
5b

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

Use a step drill to drill the 6 mounting holes to 16mm diameter.

Drill 2 or 3, 10mm diameter holes in the cut-out section for a start/stop point for the body saw, using the body saw cut the main hole in the guard panel as marked from the template cut-out in step 4.

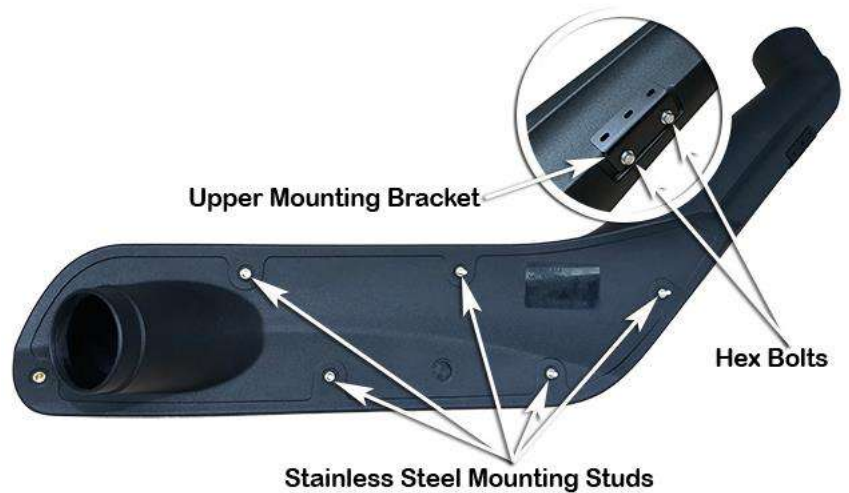
Deburr and paint holes.



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

Apply Loctite 243 to only five of the six stainless steel mounting studs (Item 7) and install the five studs finger tight into the snorkel body (item 1) mounting inserts, excluding the front mounting insert as shown.

N.B: Do Not Install the front mounting stud into the snorkel body mounting insert.

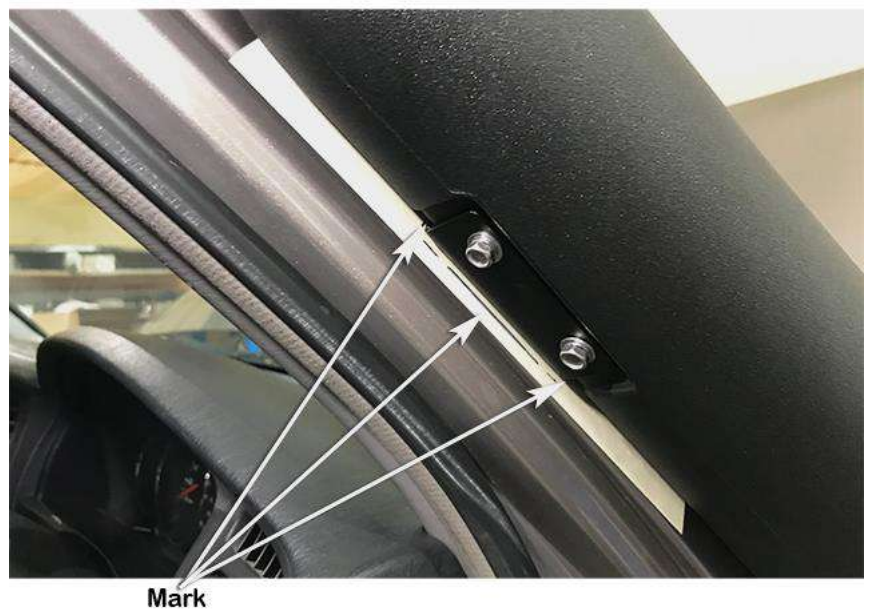


Place a strip of masking tape along the A-Pillar panel.

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 (Item 3) onto the masking tape.

(If upgrading from a SS86HF to a SS86HP, remove the 3 plastic inserts from the A-pillar first, before applying the strip of masking tape to the A-pillar)



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.

(If upgrading from a SS86HF to a SS86HP, mark the centres of the existing A-pillar holes onto the masking tape, the slots in the bracket are there to allow for slight differences from the previously fitted snorkel, depending on where the previously fitted snorkel was positioned on the A-pillar will determine whether or not the bracket may need to be modified by the installer).

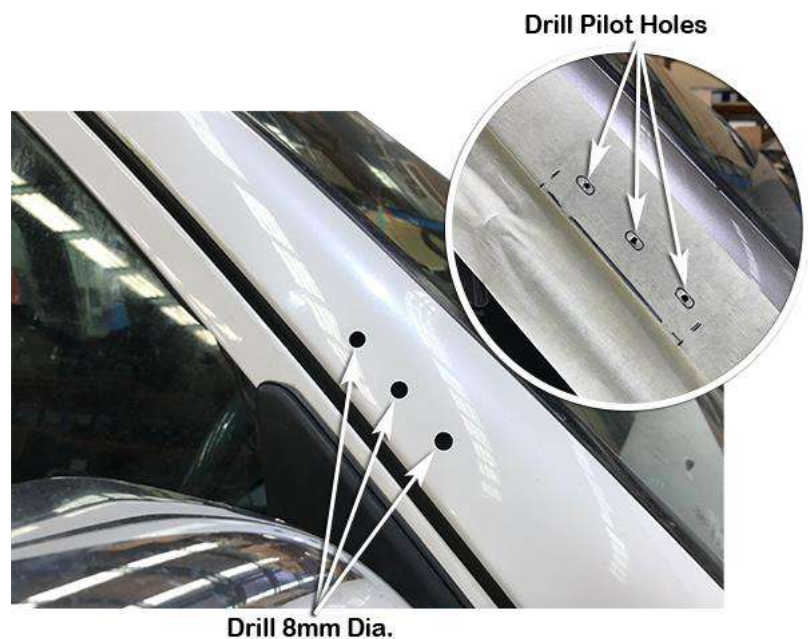


Drill a pilot hole for each of the three marked hole positions in the centre of each marked slot.

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

Deburr and paint holes.

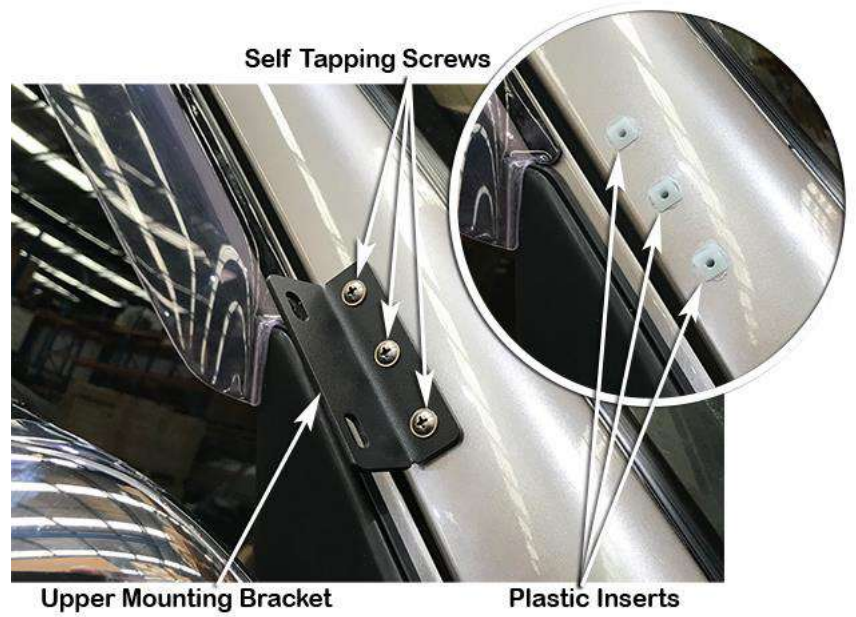
*(If upgrading from a SS86HF to a SS86HP, you will need to work out the required bracket position, if required modified the bracket to suit, **Do not drill any additional holes in the A-pillar**).*



10a

Install the plastic inserts (Item 6) into the 8mm diameter holes in the A-pillar.

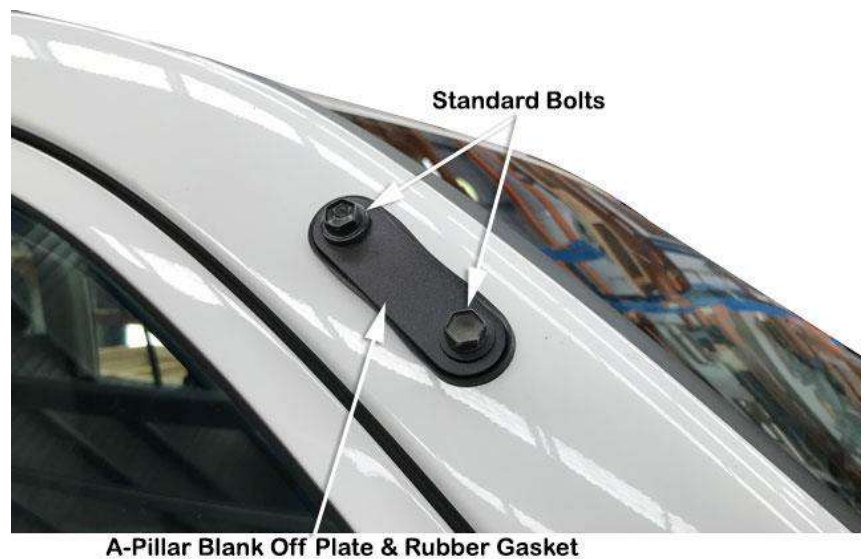
Secure the upper mounting bracket (Item 3) to the A-pillar with three self-tapping screws (Item 5).



10b

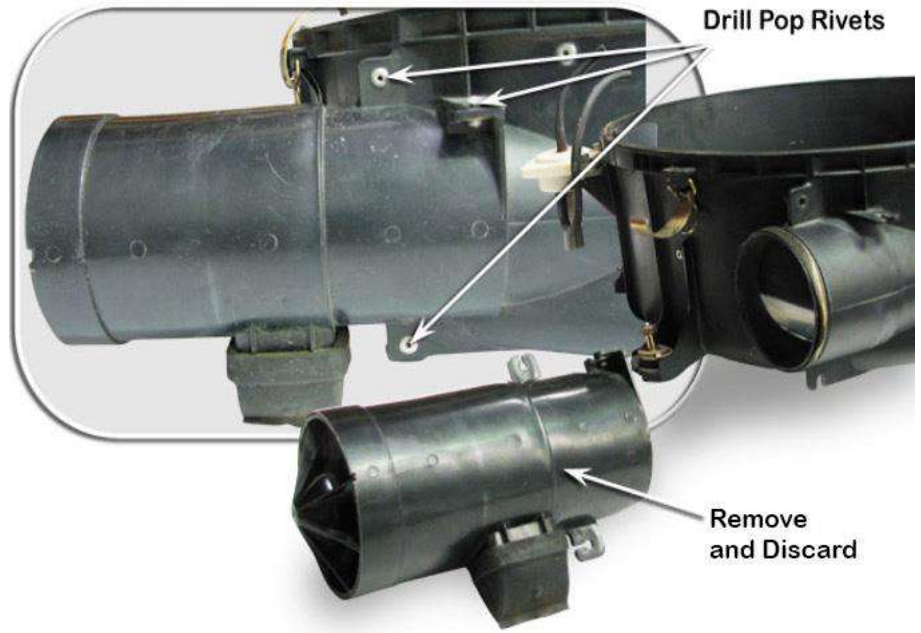
Factory Toyota Raised Air Intake Vehicle only:

Install the A-pillar blank-off plate (item 19) and rubber gasket (Item 20) to the A-pillar, secure with the standard Toyota bolt assemblies removed and retained in step 2b.



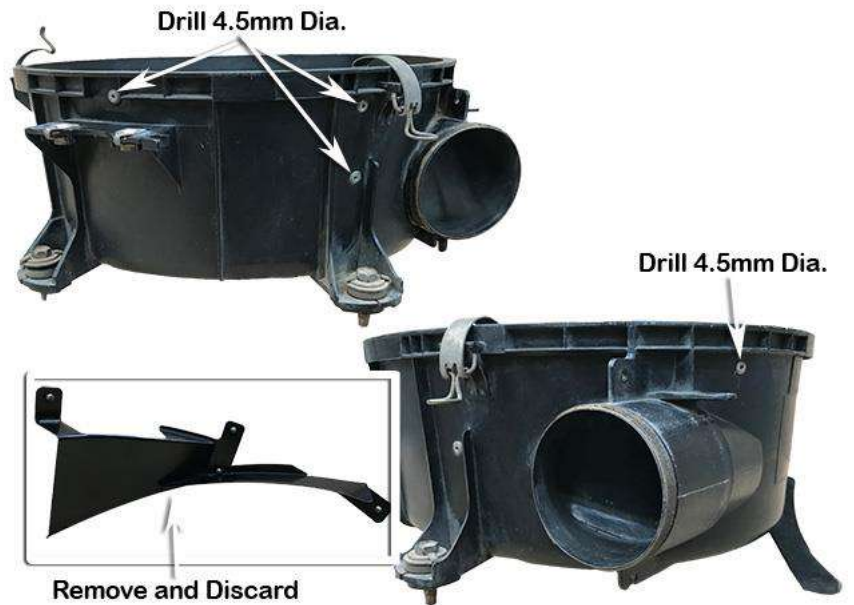
Using a 4.5mm drill bit, drill out the 3 pop rivets retaining the pre-spinner section of the air cleaner inlet snout to the air cleaner base (hold the back of the pop rivets with a pair of pliers to prevent them from spinning whilst drilling out the pop rivets).

Remove and discard the pre-spinner section.

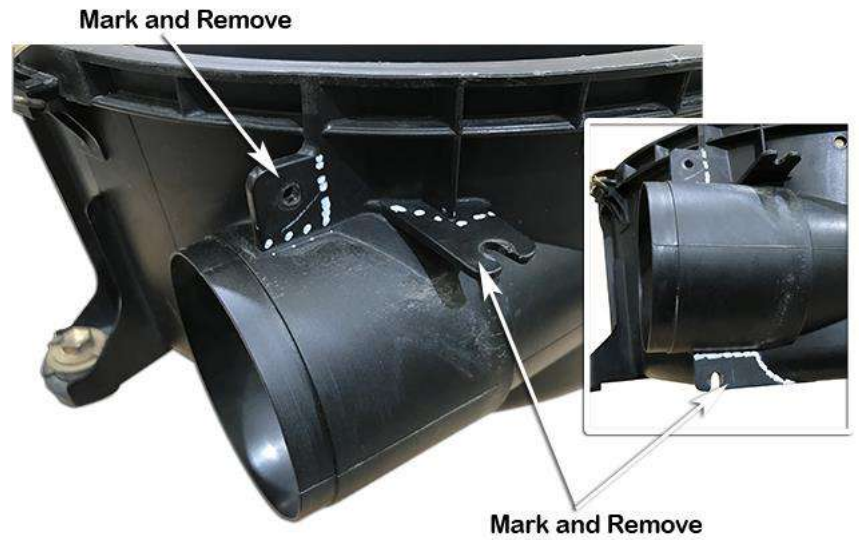


Using a 4.5mm drill bit, drill out the four pop rivets retaining air deflector in the air cleaner base (hold the back of the pop rivets with a pair of pliers to prevent them from spinning whilst drilling out the pop rivets).

Remove and discard the air deflector.

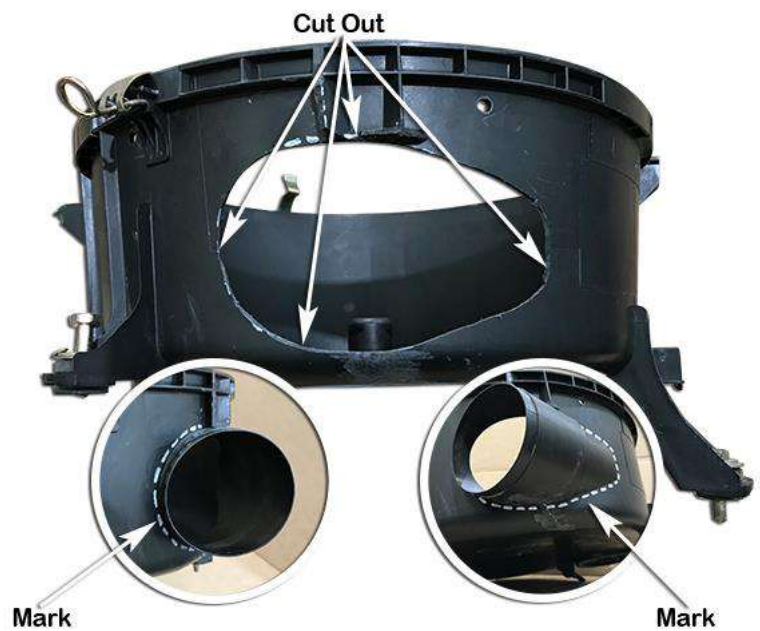


Using the body saw cut-off the 3 tabs which retained the pre-spinner section to the air cleaner base inlet.



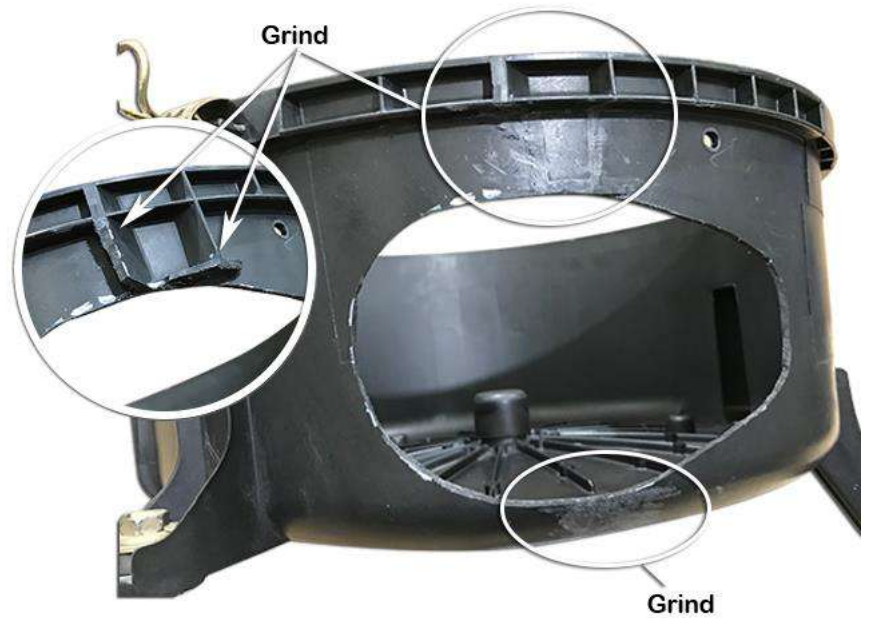
Using a paint pen, mark a cut line around the base of the inlet snout.

Using the body saw carefully cut around the base of the inlet snout and remove the inlet snout from the air cleaner base.



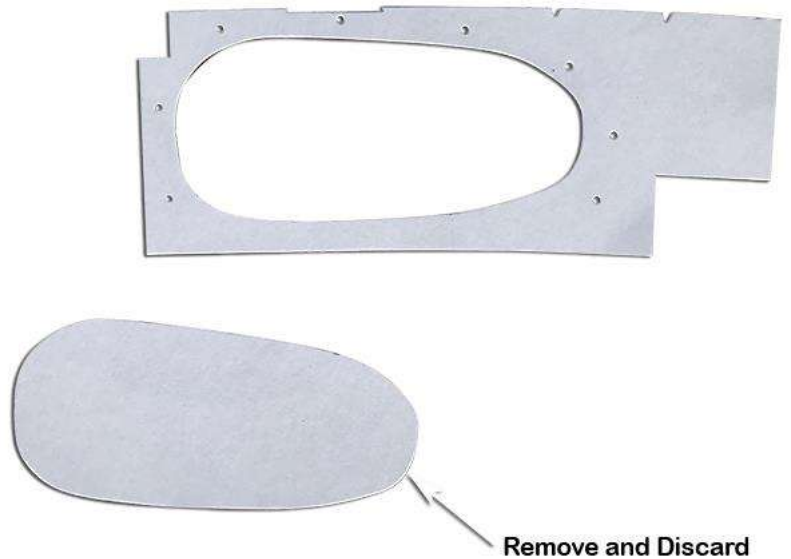
15

Using the body saw, neatly cut-off the remaining sections of the three tabs removed in step 13, use a grinder, file, or sharp knife to clean up the three tabs flush to the air cleaner base.



16

Remove and discard the perforated inner section from the air cleaner template (item 21) as shown.

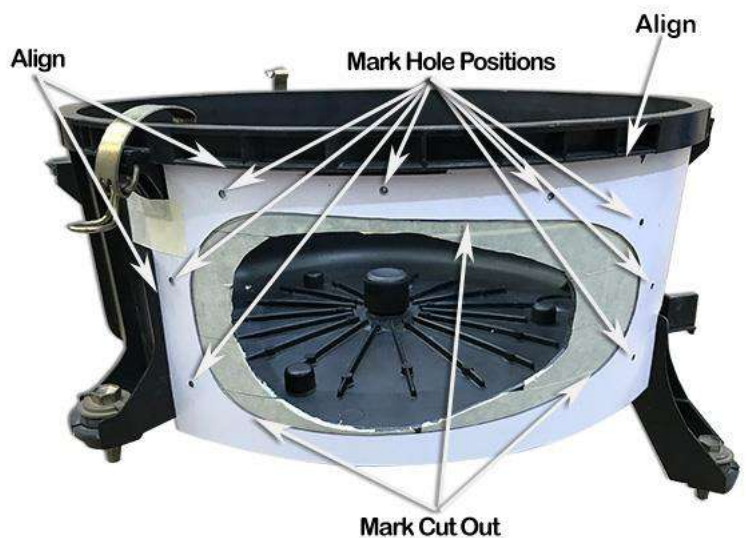


17

Align the air cleaner template (item 21) to the side of the outer air cleaner mounting bracket and under the main shoulder of the air cleaner base as shown, tape the template to the air cleaner base with masking tape.

Mark all eight hole positions and the required air cleaner base cut-out.

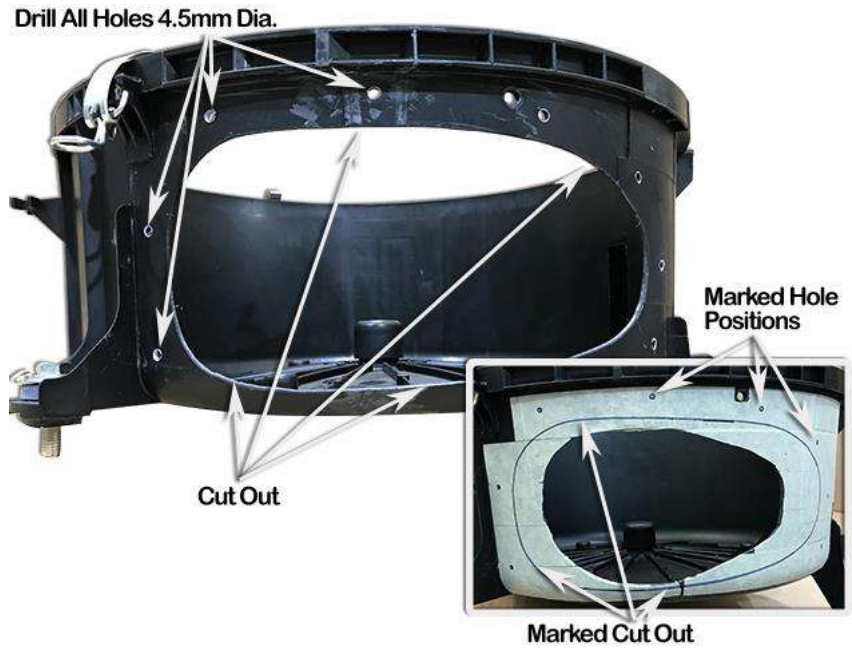
Remove the template.



Using a 4.5mm drill bit, drill all eight marked hole positions.

Using the body saw, cut the new air cleaner entry hole as marked from the template in step 17.

Deburr all eight holes and the air inlet hole.



Carefully bend the main hose support plate (item 11) to the external diameter of the air entry hose flange.

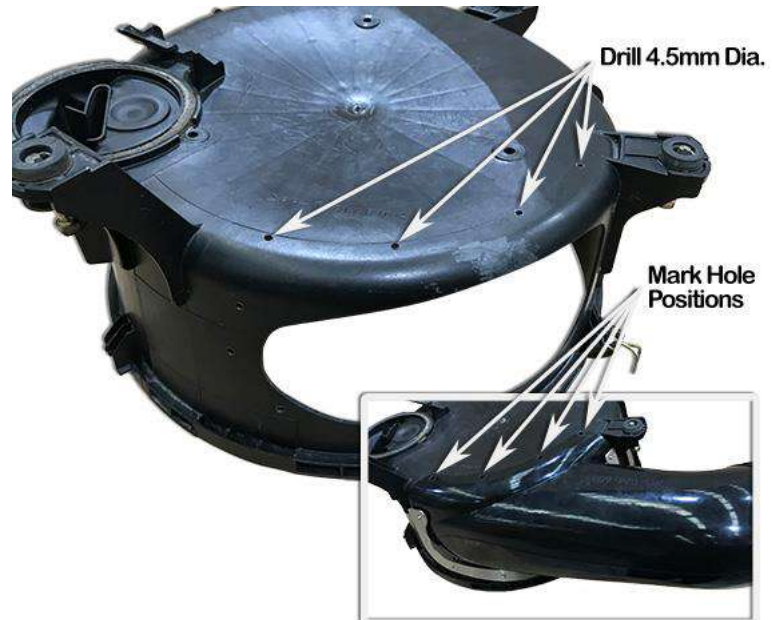
Trial fit the plate to hose and check the bend.

Hint: Bend the support plate to a diameter of approximately 350mm.



Install the air entry hose (Item 10) onto the air cleaner base. Position the hose support plate (Item 11) onto the air entry hose flange and install the eight pop rivets (Item 13) from the inside of the air cleaner base through the air entry hose and support plate.

When all the pop rivets are installed and the hose aligned correctly, mark or drill the four lower mounting holes as shown.



Apply a liberal amount of adhesive sealant to the flange of the air entry hose (Item 10), apply an additional amount of sealant to the corner section of the air entry hose flange.

Install the air entry hose (Item 10) onto the air cleaner base. Position the hose support plates (Item's 11 & 12) onto the air entry hose flange.

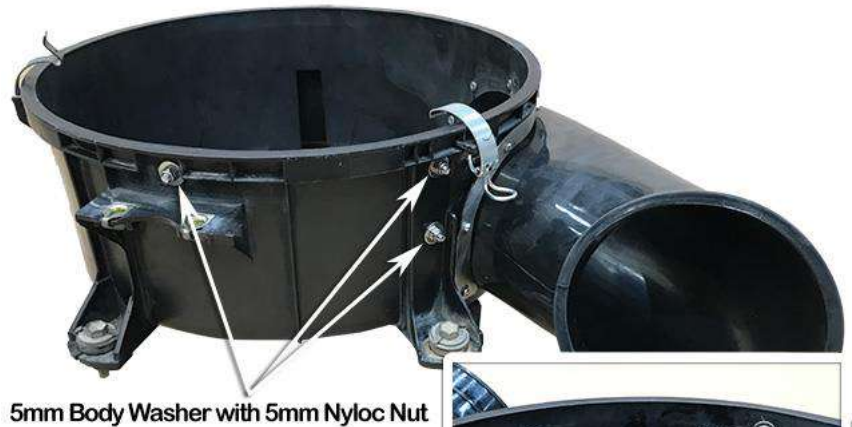
Install all twelve pop rivets (Item 13) from the inside of the air cleaner base through the air entry hose and clamping plates.

With all the pop rivets installed and the hose aligned correctly, fasten the pop rivets using a pop rivet gun.

Clean-up any excess sealant to ensure a neat finish.



Install a 5mm body washer (item 15) to each of the 5.0 x 12mm button head bolts (item 14), install the bolts with washers installed through the three holes in the air cleaner base, secure the bolts with 5.0mm body washer (item 15) and 5.0mm nyloc nut (item 16).



5mm Body Washer with 5mm Nyloc Nut



5 x 12mm B/H Bolt with 5mm Body Washers

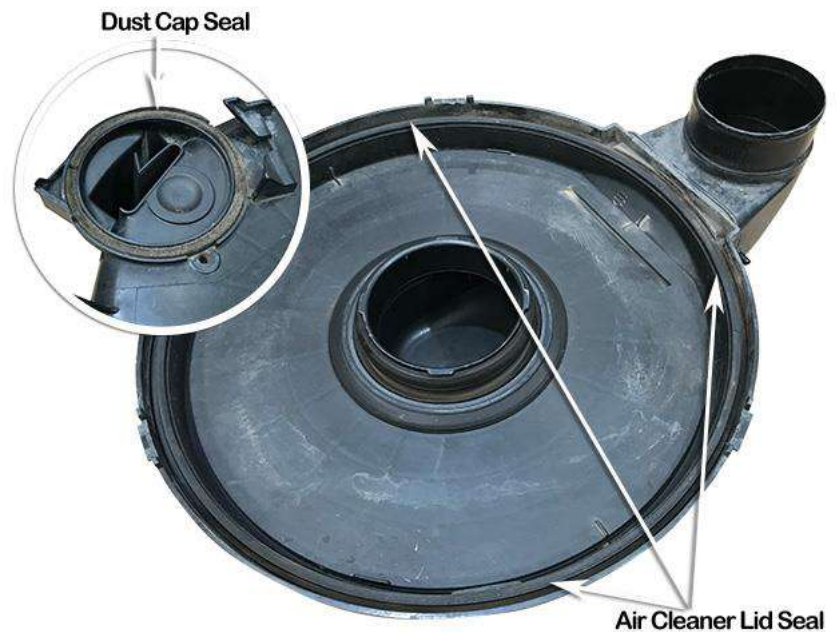
INSTALLER OPTION :

The air cleaner housing base dust cap 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.



The installer should also check the condition of both the Air Cleaner Lid Seal and the Dust Cap Seal, if necessary, these items should be replaced if they are in a poor serviceable condition.



The end of the air entry hose (item 10) must be squashed inwards and taped to hold in position as shown.

N.B: it is critical the hose is taped the way shown in the photo, for installation purposes.

With the hose taped, install the air cleaner base assembly into position, guiding the air entry hose through the hole in the inner guard panel, with the air cleaner base correctly installed fasten with the standard mounting bolts.

Remove the tape.



Loosely install the 100/120mm hose clamp (item 17) loosely over the air entry hose (Item 10).

Note the orientation of the hose clamp.



100/120mm Hose Clamp

Carefully install the snorkel body (Item 1) to the guard panel, guiding the snorkel body outlet into the air entry hose (item 10), align the snorkel body to guard panel and upper mounting bracket. When correctly aligned, install the front mounting stud (item 7) finger tight into the snorkel body mounting insert (*do not apply loctite to the mounting stud*).

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

Body Washers and Nyloc Nuts

28

100 / 120mm Hose Clamp

Ensure the air entry hose is correctly installed onto the snorkel body outlet and tighten the 100/120mm hose clamp (item 17).



Air Entry Hose

Snorkel Body Outlet

29

Install the black hose clamp (Item 18) loosely to 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 18).



Black Hose Clamp

Air Ram

30

Install the standard air filter element, air cleaner lid, side indicator, guard liner, mud flap and any additional components that may have been removed during the snorkel installation process.

31

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