



SS79HPV

Toyota LandCruiser 70 series (Wide Nose)
4.5L V8 Intercooled Turbo Diesel (1VD-FTV Engine)
(Replaces Factory Toyota Raised Air Intake)



01/05/2020

Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	333-133-000	BODY - SNORKEL (SS79HP)	1
2	000-135-960	4" AIR RAM ASSEMBLY	1
3	333-032-600	BRACKET - UPPER MOUNTING - Main (Pressed)	1
4	333-032-625	BRACKET - CLAMPING - Outer Band (Pressed)	1
5	333-032-650	BRACKET - CLAMPING - Inner Band (Pressed)	1
6	333-435-600	GASKET - RUBBER BRACKET	1
7	000-1013-450	BOLT - HEX - 8mm x 1.25 x 25mm (SEMS) - Black S/S	1
8	333-032-200	BRACKET - REAR MOUNTING (LOWER)	1
9	333-704-600	PLATE - BLANK-OFF (Snorkel Body)	1
10	000-038-450	BOLT - TORX SCREW - 6mm x 1.0 x 12mm - Black S/S	4
11	000-442G	GROMMET - M8 - RUBBER	1
12	000-442S	FERRULE - M8 x 11.15mm Long - S/S	1
13	000-110	STUD - 8mm x 1.25 x 25mm - S/S	6
14	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	6
15	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	6

16	333-024-000	HOSE - AIR ENTRY	1
17	333-217-000	TEMPLATE - AIR CLEANER HOUSING (Rear)	1
18	333-217-100	TEMPLATE - AIR CLEANER HOUSING (Side)	1
19	333-217-200	TEMPLATE - AIR CLEANER HOUSING (Lower)	1
20	333-025-000	PLATE - HOSE SUPPORT - Main Rear	1
21	333-025-100	PLATE - HOSE SUPPORT - Side Upper	1
22	333-025-200	PLATE - HOSE SUPPORT - Lower Corner	1
23	333-025-300	PLATE - HOSE SUPPORT - Side Lower	1
24	333-025-400	PLATE - HOSE SUPPORT - Lower	1
25	000-958-150	POP RIVET - 4mm x 13mm	14
26	000-1912	CLAMP - HOSE - 110/130mm - S/S	1
27	333-017-000	TEMPLATE - GUARD PANEL	1



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Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 180 min

Special Tools:

- Body Saw (Reciprocating)
- Step Drill
- Loctite 243 (Thread Lock)
- 6mm Spot weld drill / 6.5mm drill bit
- T30 Torx Drive
- 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 27) are correct.

1

Remove the following in accordance with the factory service manual:

- Air Cleaner Assembly

2

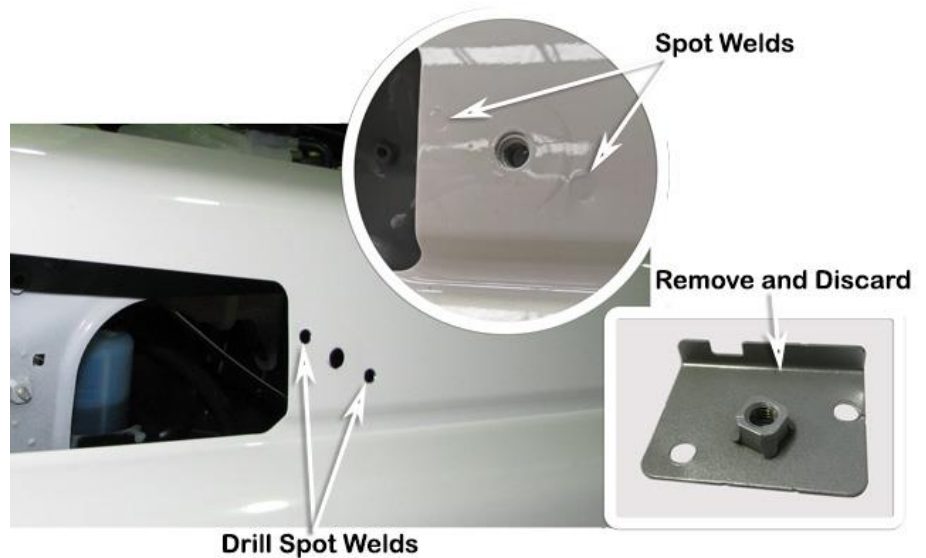
Remove and discard the Factory Toyota Raise Air Intake components (shown). The following hardware must be retained, two A-pillar bracket mounting bolt assemblies and either the front or rear mounting bolt assembly as shown.



The front factory captive mounting nut assembly must be removed.

The assembly is spot welded to the guard panel normally in two places. Firstly identify where the assembly has been spot welded to the guard panel as the position of the spot welds may vary from vehicle to vehicle.

Drill a pilot hole in the centre of each spot weld 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 and remove the nut assembly.



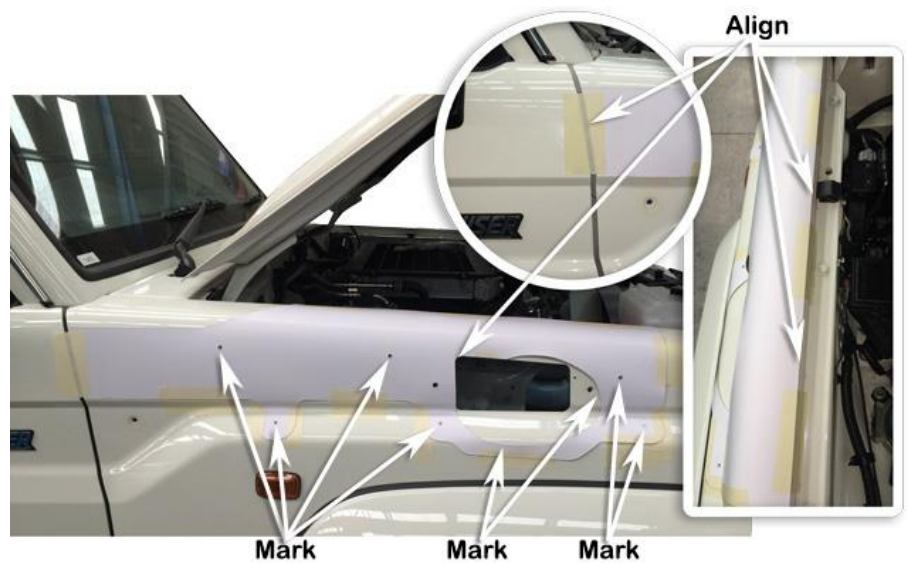
Remove and discard the perforated section from the guard panel template (item 27) as shown.



Align the guard panel template (Item 27) to the rear edge, upper edge and to the factory hole of the guard panel as shown.

Tape the template to the guard panel with masking tape, mark all six hole positions and the snorkel body outlet hole section with a felt tip pen.

Remove the template.



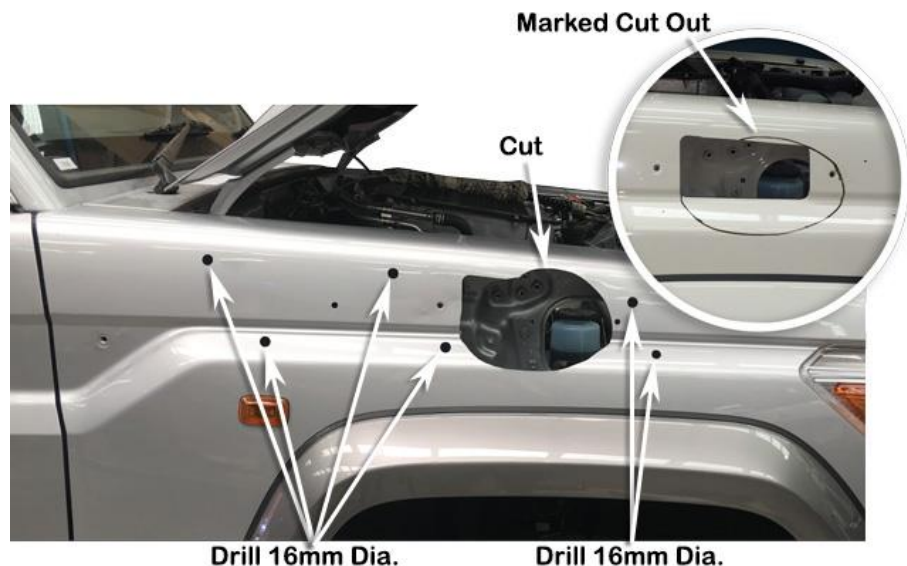
Drill a pilot hole for each of the marked hole positions.

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

Use a body saw to trim away the marked section of the guard panel as shown.

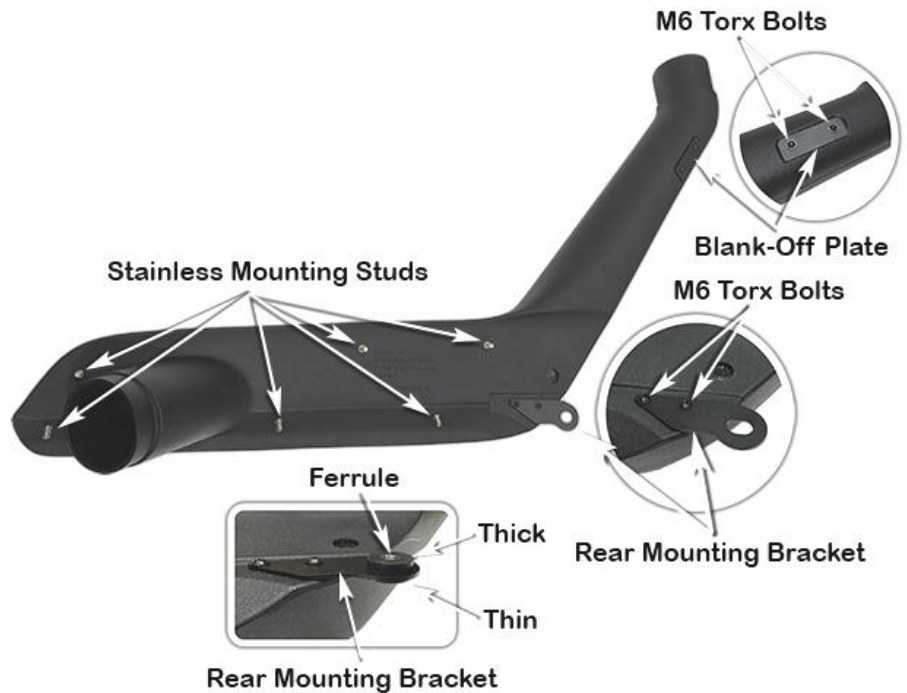
Deburr and paint all holes and cut sections of guard panel to prevent rust.

Hint: If the vehicle is fitted with flares, prior to any cutting or drilling, place a strip of masking tape along the flare seal and guard panel to prevent metal filings being trapped between the seal and guard panel.



Install the blank-off plate (item 9) to the snorkel body (item 1) bracket relief, apply Loctite 243 to two of the M6 x 12mm Torx bolts (item 10) and install the 2 x M6 Torx bolts through the blank-off plate and into the M6 brass inserts, align the blank-off plate in the relief as shown and tighten the M6 Torx bolts.

Apply Loctite 243 to each of the stainless steel mounting studs (item 13) and install the studs finger tight into the snorkel body (item 1) mounting inserts as shown.



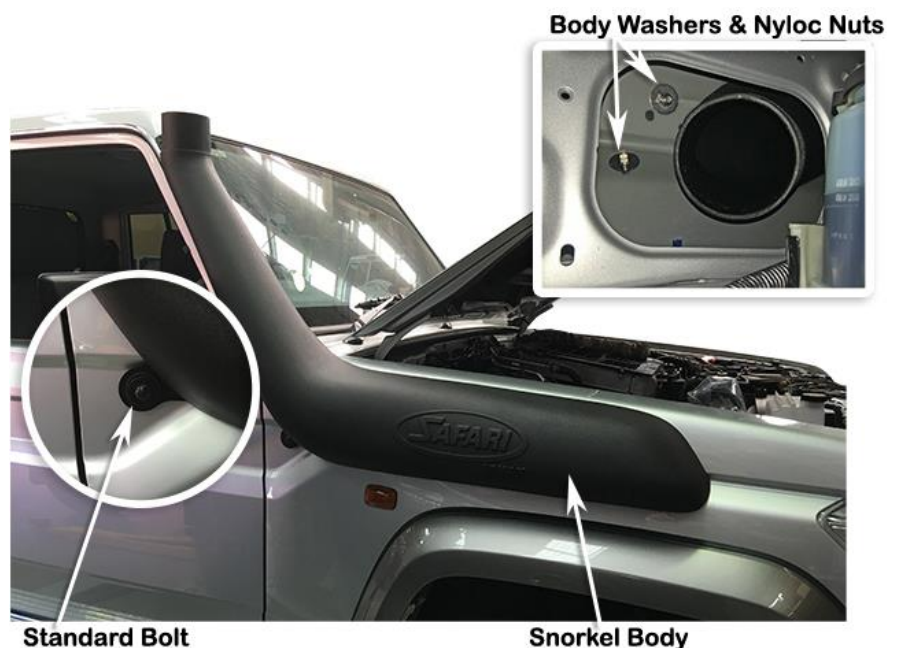
Apply loctite 243 to the remaining two M6 x 12mm Torx bolts (item 10) and secure the rear mounting bracket (item 8) to the snorkel body as shown.

Install the rubber grommet (item 11) into the lower mounting bracket (item 8) with the thicker side of the grommet facing the panel side of the snorkel body.

Install the stainless steel ferrule (item 12) into the grommet as shown.

Carefully install the snorkel body (item 1) to the guard panel.

When correctly aligned, fasten the snorkel body to the guard panel with body washers (item 14) and nyloc nuts (item 15). Fasten the rear mounting bracket with a standard Toyota bolt assembly removed in step 2.



Install the rubber bracket gasket (item 6) to main upper mounting bracket (item 3), using the 2 x M8 A-pillar bracket genuine bolts retained in step 2, secure the main upper mounting bracket with rubber gasket installed to the 2 captive nuts in the A-pillar.



Connect the outer and inner clamp brackets (item's 4 & 5) together as shown.



Install the air ram assembly (item 2) onto the snorkel body inlet.

Install the outer and inner clamp brackets (item's 4 & 5) around the air ram, ensure the brackets are positioned over the 4 upper moulded lugs on the air ram.

With the clamp brackets positioned correctly around the air ram assembly install the 8 x 25mm sems bolt (item 7) through the outer and main bracket holes and into the captive nut of the inner clamp bracket, align the air ram assembly and tighten the 8 x 25mm sems bolt.



Using the body saw, remove the air cleaner inlet snout from the air cleaner base.

(N.B: It is extremely critical that the inlet snout is removed correctly as shown, the snout must be cut-off flush from the housing and NOT cut-off around the snout).

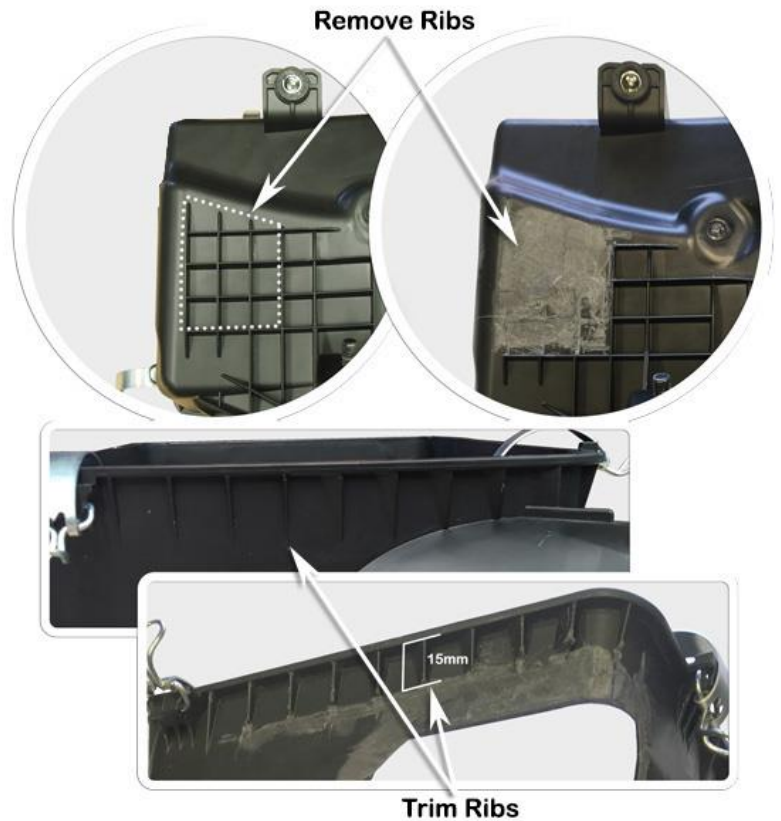
Use a grinder or files to neaten the cuts.



The following ribs on the air cleaner base must be removed or shortened as shown.

Using the body saw or grinder remove the 3 x 3 grid of ribs from the underside of the air cleaner base.

Measure 15mm down from the underside of the sealing face of the air cleaner base and shorten the 9 ribs shown using a flat file, sharp knife or grinder.



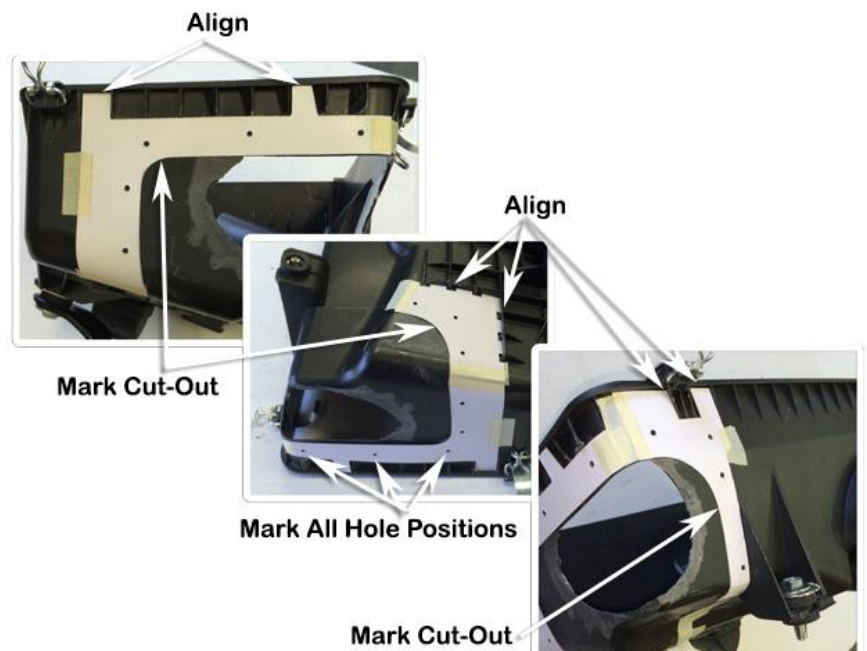
Align the rear air cleaner template (item 17) to the rear of the air cleaner base as shown, tape the template to the air cleaner base with masking tape.

Align the side air cleaner template (item 18) to the side of the air cleaner base as shown, tape the template to the air cleaner base with masking tape.

Align the lower air cleaner template (item 19) to the underside of the air cleaner base as shown, tape the template to the air cleaner base with masking tape.

With all three templates aligned on the air cleaner base, mark all 14 hole positions and the required air cleaner base cut-out.

Remove the templates.



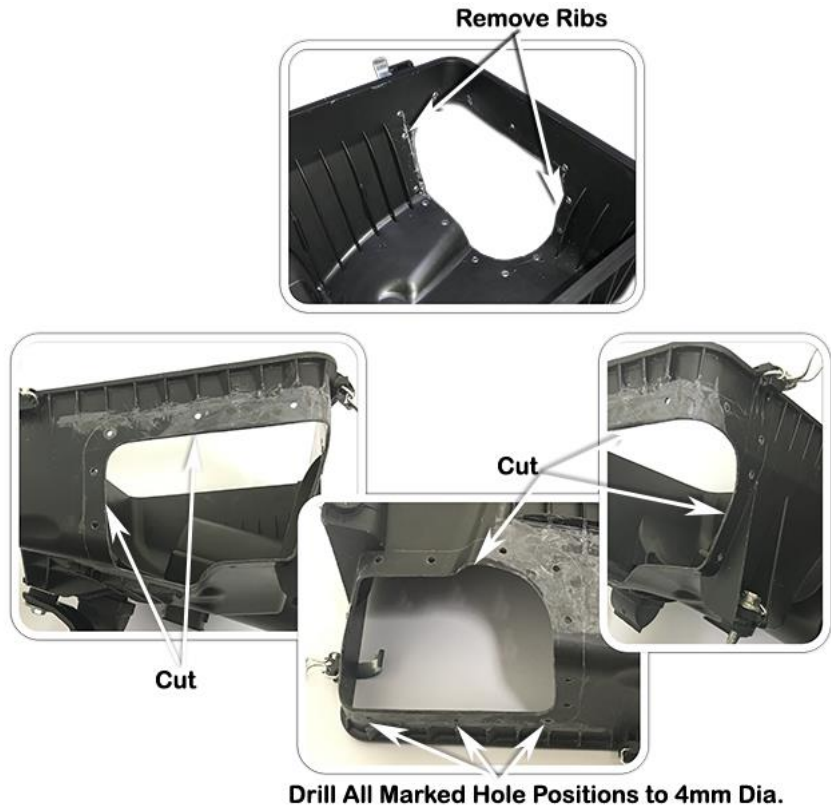
Using a 4.0mm drill bit, drill the fourteen marked hole positions.

Using the body saw cut the new air cleaner base inlet hole as marked in step 14, using the body saw remove the two internal ribs shown.

Trial fit the air entry hose (Item 16) to ensure the inlet hole size is correct.

Remove the air entry hose.

Deburr all 14 holes and the air inlet hole.



Apply adhesive sealant to the flange of the air entry hose (Item 16), apply an additional amount of sealant to the 4 corner sections of the air entry hose flange.

Install the air entry hose (Item 16) onto the air cleaner base. Position the hose support plates (Item's 20,21,22,23 & 24) onto the air entry hose flange. Install all fourteen pop rivets (Item 25) from the inside of the air cleaner base through the air entry hose and clamping plates.

N.B: the orientation of all 14 pop rivets.

When all of the pop rivets are in place and the hose aligned correctly, work from the corner of the air cleaner base outwards and fasten the pop rivets using a pop rivet gun.

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

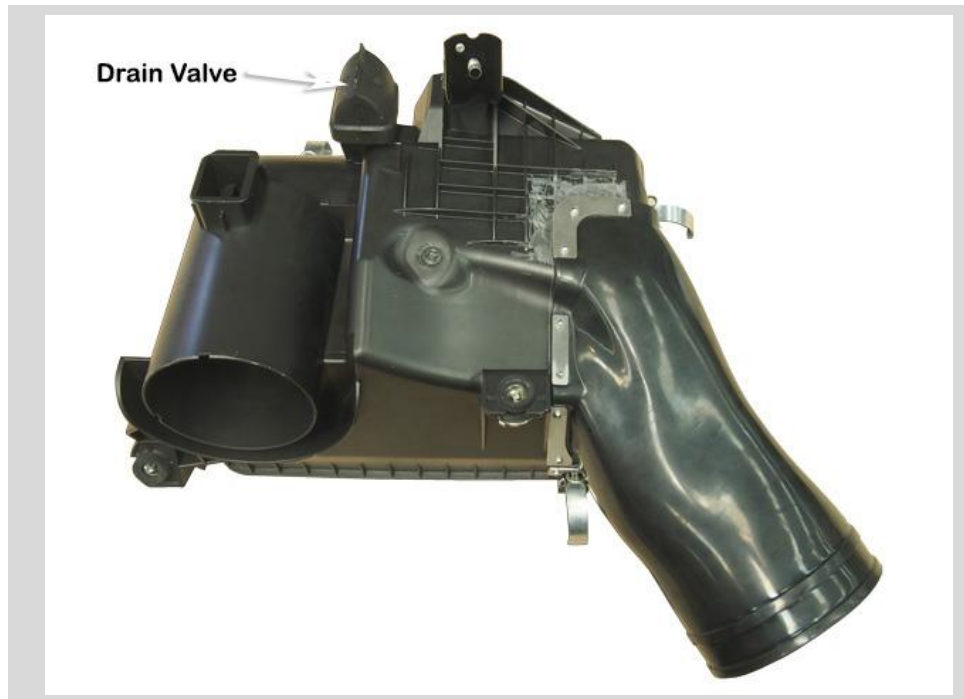
Note Orientation Of Pop Rivets



INSTALLER OPTION :

The air cleaner housing 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.



Loosely install the 110/130mm hose clamp (item 26) loosely over the air entry hose (Item 16). ***Note the orientation of the hose clamp.***

Apply a small amount of lubricant to the inside of the air entry hose and install the air cleaner base assembly guiding the air entry hose over the snorkel body outlet snout.

Secure the air cleaner base with the original mounting hardware and tighten the 110/130mm hose clamp (item 26).



Install the standard air filter element, air cleaner lid and any additional components that may have been removed during the snorkel installation process.

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