



ARMAX

SS79HPD

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



18/12/2015

Parts List

ITEM	PART NO	DESCRIPTION	QTY
1	333-133-000	BODY - SNORKEL (SS79HP)	1
2	000-135-950	4" AIR RAM ASSEMBLY	1
3	333-032-000	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	333-032-200	BRACKET - REAR MOUNTING (LOWER)	1
8	000-038-300	BOLT - B/H CAP SCREW - 6mm x 1.0 x 12mm	2
9	000-442G	GROMMET - M8 - RUBBER	1
10	000-442S	FERRULE - M8 x 11.15mm Long - S/S	1
11	000-110	STUD - 8mm x 1.25 x 25mm - S/S	6
12	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	6
13	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	6
14	333-024-000	HOSE - AIR ENTRY	1
15	333-217-000	TEMPLATE - AIR CLEANER HOUSING (Rear)	1
16	333-217-100	TEMPLATE - AIR CLEANER HOUSING (Side)	1
17	333-217-200	TEMPLATE - AIR CLEANER HOUSING (Lower)	1
18	333-025-000	PLATE - HOSE SUPPORT	1

19	333-025-100	PLATE - HOSE SUPPORT	1
20	333-025-200	PLATE - HOSE SUPPORT	1
21	333-025-300	PLATE - HOSE SUPPORT	1
22	333-025-400	PLATE - HOSE SUPPORT	1
23	000-958-150	POP RIVET - 4mm x 13mm	14
24	000-1912	CLAMP - HOSE - 110/130mm	1
25	330-704-000	PLATE - BLANK-OFF	1
26	330-435-000	RUBBER PAD	1
27	000-1931/B	CLAMP - HOSE - SIZE 64 (BLACK)	1
28	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
- 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 28) are correct.

1

Remove the following in accordance with the factory service manual:

- Air Cleaner Assembly

2

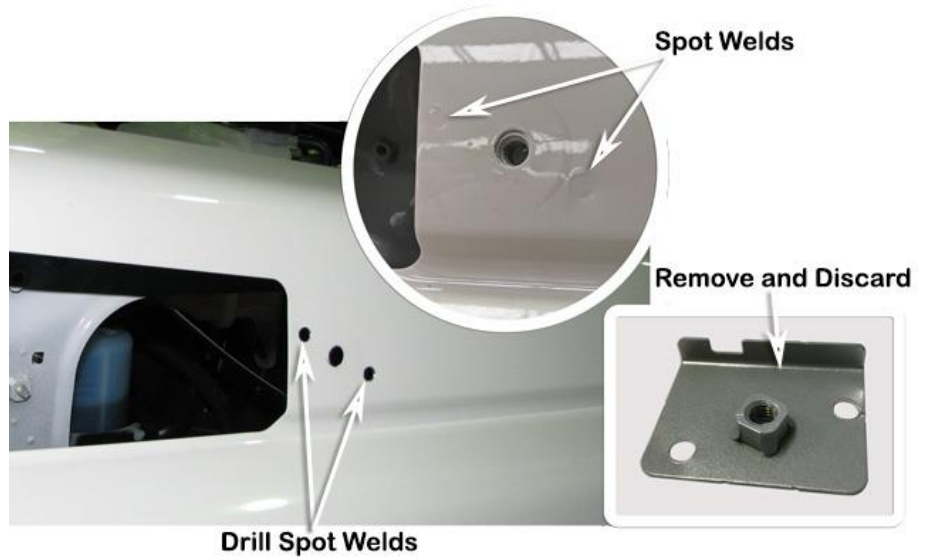
Remove and discard the Factory Toyota Raise Air Intake components (shown). The following hardware must be retained, two A-pillar bracket mounting bolt assemblies and either the front or rear mounting bolt assembly as shown.



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.



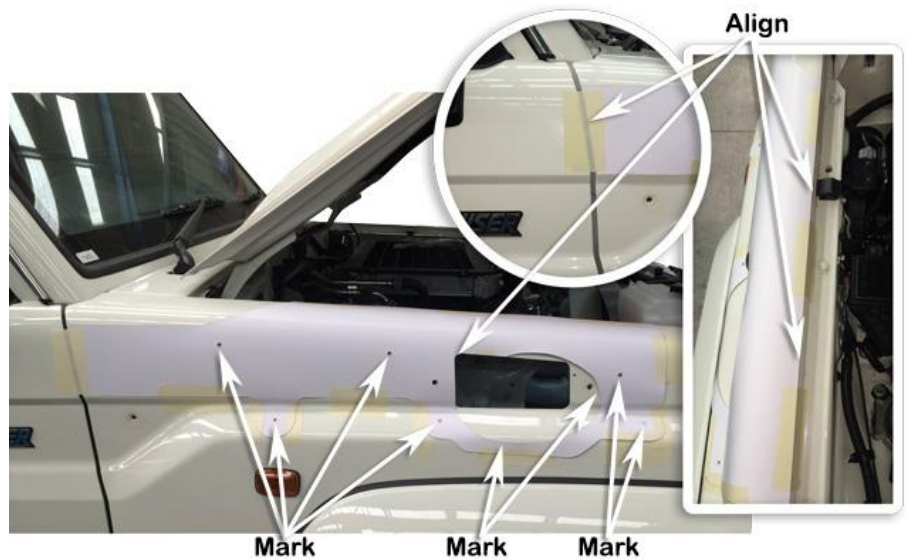
Remove and discard the perforated section from the guard panel template (item 28) as shown.



Align the guard panel template (Item 28) 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.



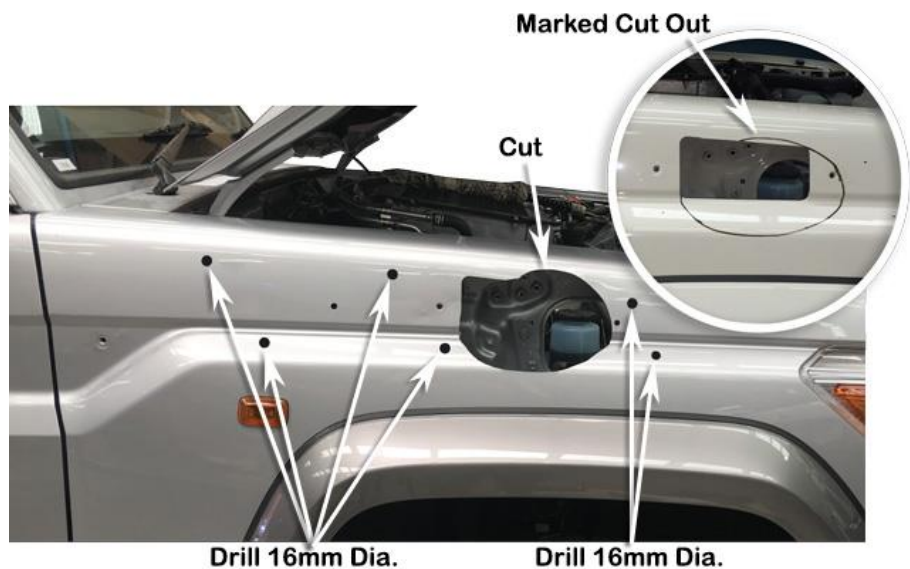
Drill a pilot hole for each of the marked hole positions.

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.

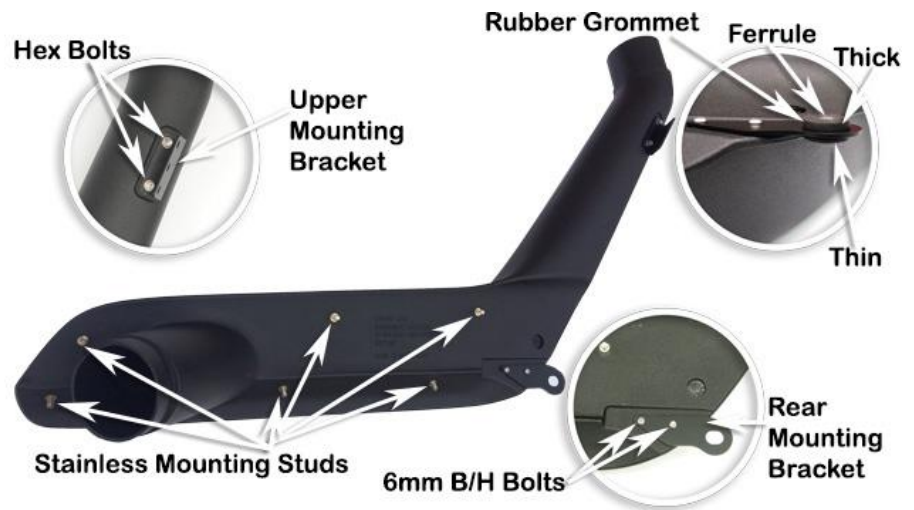
Deburr and paint all holes and cut sections of guard panel to prevent rust.

Hint: 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 upper mounting bracket (item 3) to the snorkel body (item 1) with 6mm hex bolts (item 4).

Apply Loctite 243 to each of the stainless steel mounting studs (item 11) and install the studs finger tight into the snorkel body (item 1) mounting inserts as shown.



Apply loctite 243 to the two 6mm button head cap screws (item 8) and secure the rear mounting bracket (item 7) to the snorkel body as shown.

Install the rubber grommet (item 9) into the lower mounting bracket (item 7) with the thicker side of the grommet facing the panel side of the snorkel body.

Install the stainless steel ferrule (item 10) into the grommet 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, mark the three upper mounting bracket hole positions as shown.

Hint: if necessary push the top of the snorkel body towards the windscreen rubber, so that the edge of the upper mounting bracket has a zero gap to the windscreen rubber.

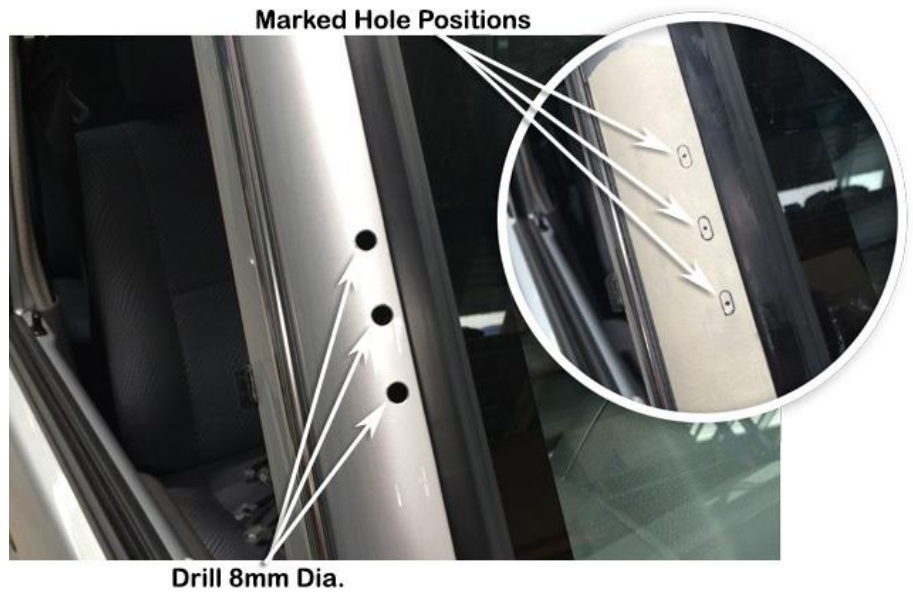


Remove the snorkel body (item 1) from the vehicle.

Mark the centre of each of the marked slots positions on the A-pillar, Drill a pilot hole at each of the three marked hole centres.

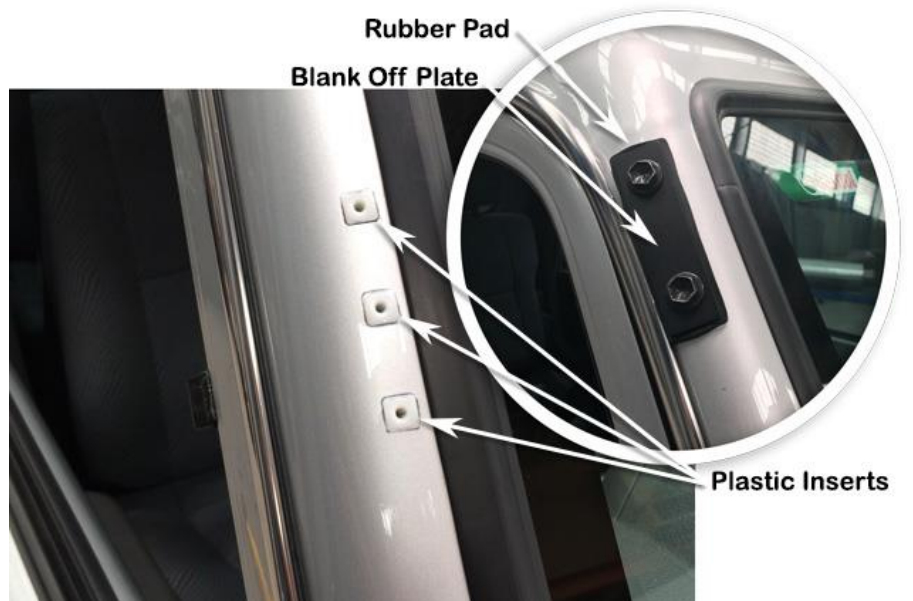
Drill each hole position to 8mm diameter with a step drill or 8mm drill bit.

Deburr and paint holes to prevent rust.



Install the plastic inserts (item 6) into the upper mounting bracket holes in the A-pillar.

Install the blank-off plate (item 25) and rubber pad (Item 26) to the A-pillar, secure with standard Toyota bolt assemblies removed in step 2.

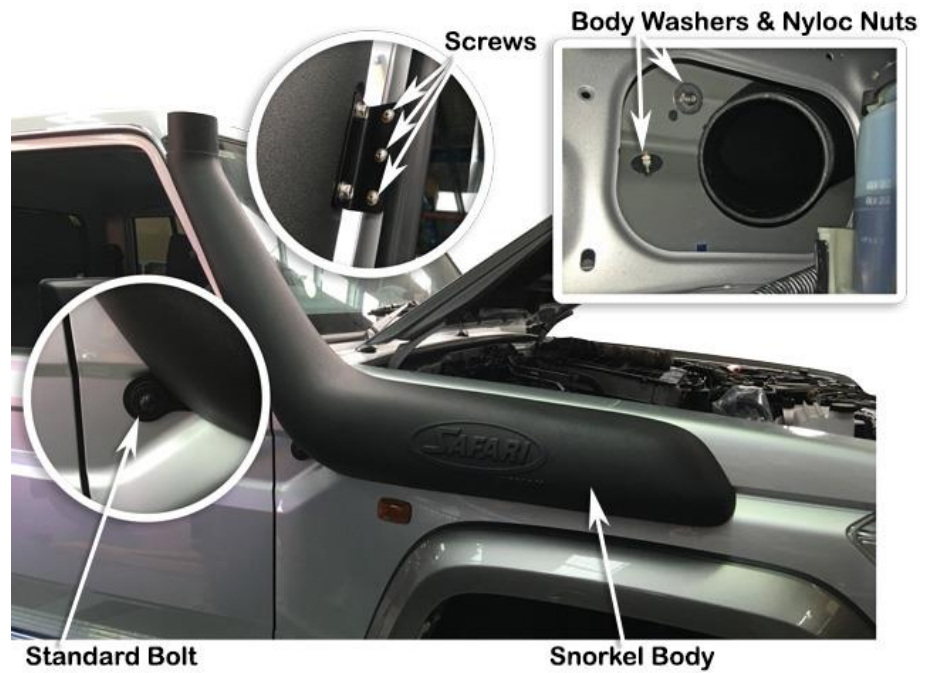


Carefully install the snorkel body (item 1) to the guard panel.

Align the snorkel body to the guard panel and A-pillar.

When correctly aligned, fasten the snorkel body to the guard panel with body washers (item 12) and nyloc nuts (item 13). Fasten the rear mounting bracket with a standard Toyota bolt assembly removed in step 2.

Fasten the upper mounting bracket to the A-pillar with self-taping screws (item 5).



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 or grinder.



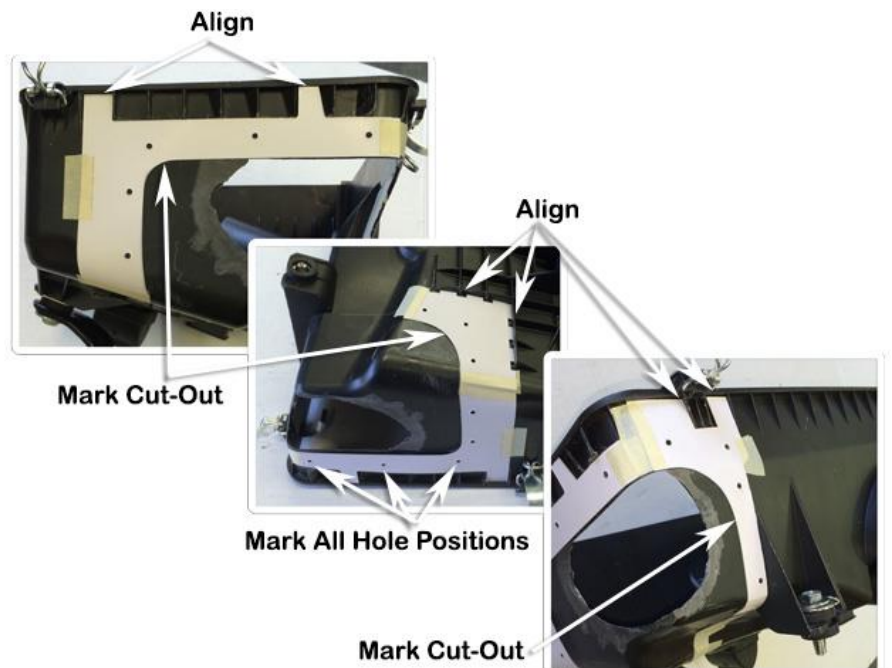
Align the rear air cleaner template (item 15) to the rear of the air cleaner base as shown, tape the template to the air cleaner base with masking tape.

Align the side air cleaner template (item 16) 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 17) 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.



Use a 4.0mm drill bit to drill all fourteen marked hole positions.

Use a body saw to trim away the marked air cleaner base cut-out.

Trial fit the air entry hose (Item 14) to ensure that the inlet hole size is correct.

Remove the air entry hose.

Deburr all 14 holes and the air inlet hole.



Apply a coating of adhesive sealant to the flange of the air entry hose (Item 14), apply an additional amount of sealant to the 4 corner sections of the air entry hose flange.

Install the air entry hose (Item 14) onto the air cleaner base. Position the hose support plates (Item's 18,19,20,21 & 22) onto the air entry hose flange. Install all fourteen pop rivets (Item 23) 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.

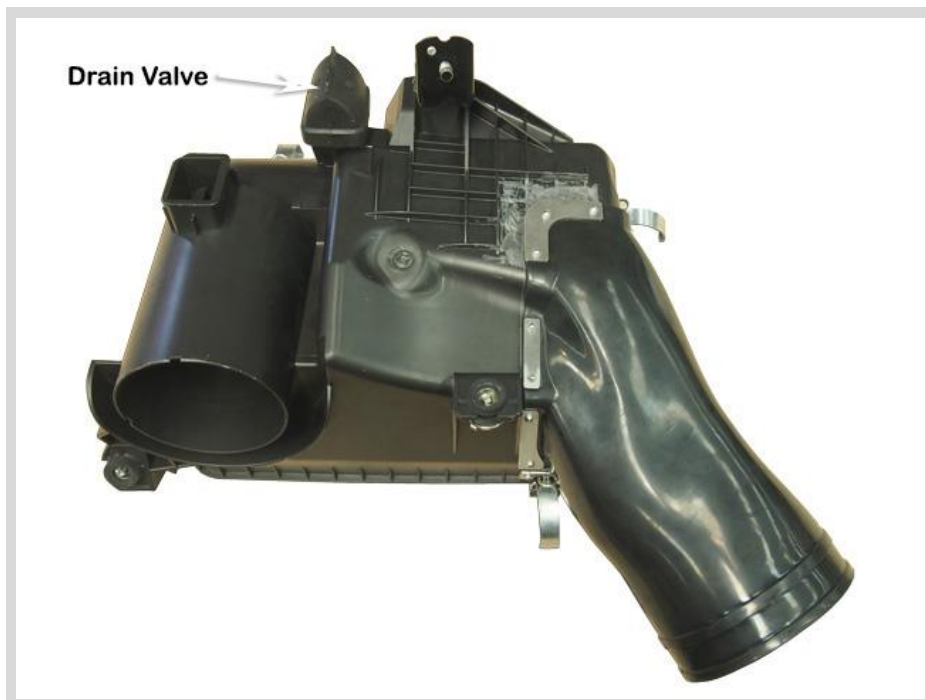


18

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.



19

Loosely install the 110/130mm hose clamp (item 24) loosely over the air entry hose (Item 14).

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 24).



20

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

Install the black hose clamp (Item 27) 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 27).



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