SS185HFD SAFARI V-SPEC SNORKEL

To Suit: Toyota Land Cruiser Prado 90 Series with 3.0 litre, D4D Turbo Diesel (1KD-FTV) engine

01/04/2015

Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	395-133-000	BODY - SNORKEL	1
2	000-135-400	3" AIR RAM ASSEMBLY	1
3	390-032-000	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX 6mm x 1.0mm x 14mm	3
5	000-951-300	SCREW - S/T 4.2mm x 16mm	4
6	000-960	INSERT - PLASTIC	4
7	000-110	STUD - S/S 8mm x 1.25mm x 25mm O/L	5
8	000-311-300	WASHER - BODY 8mm x 30mm S/S	5
9	000-205-300	NUT - NYLOC 8mm x 1.25mm S/S	5
10	395-024-000	HOSE - AIR ENTRY	1
11	000-908	CLAMP - HOSE 70/90mm	2
12	395-025-000	JOINER - AIR ENTRY (69mm ID x 35mm Long) S/S	1
13	000-958-450	POP RIVET - 4.8mm x 21mm	4
14	395-017-000	TEMPLATE	1
15	000-918/B	HOSE CLAMP - SIZE 48 (BLACK)	1

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Installation Guide

Fitment to:

- Right Hand Side

Fitting Time:

- 120min

Special Tools:

- 86mm hole saw
- step drill
- 5.0mm drill bit
- pop rivet gun
- touch-up paint
- masking tape
- Air Body saw
- Sikaflex 227 Adhesive Sealant
- Loctite 243 Threadlocker

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 following in accordance with the factory service manual.

- RHS front wheel arch liner
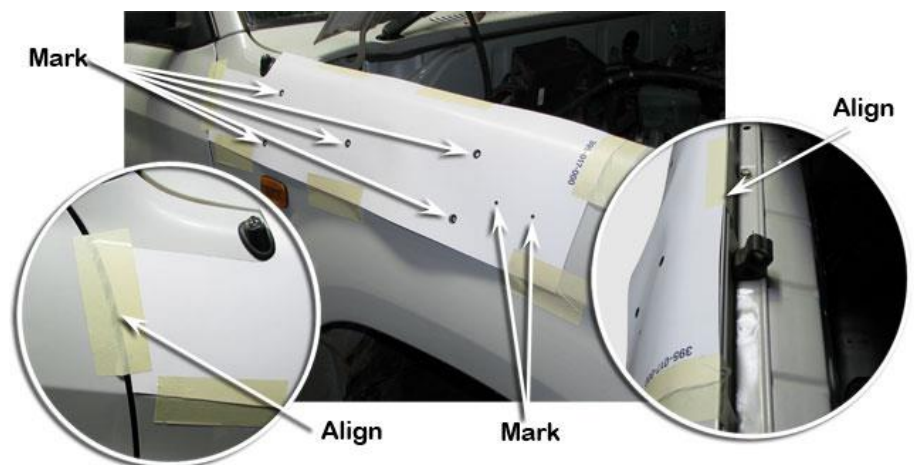- Air cleaner assembly
- Battery

Remove and discard the air inlet duct.

2	Tape the template (Item 14) to the rear and upper edges of the RHS guard panel.

With the template correctly positioned, mark all of the hole positions with a felt tip pen.

Remove the template.

3

Drill a pilot hole for each hole position.

Pilot Drill Hole Positions

4

Use a step drill to drill the five mounting holes to 16mm diameter.
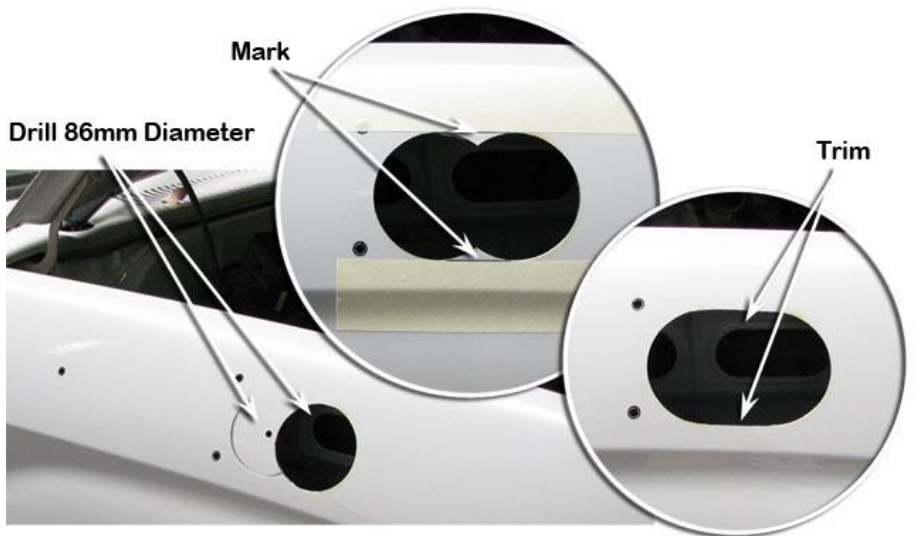
Step Drill 16mm Diameter

5 Use an 86mm hole saw to drill the two holes for the snorkel body outlet snout.

Mark a straight line at the top and bottom between the two 86mm diameter holes.

Use an air body saw to trim the panel between the two 86mm diameter holes.

Deburr and paint all holes to prevent rust.

Mark

Drill 86mm Diameter
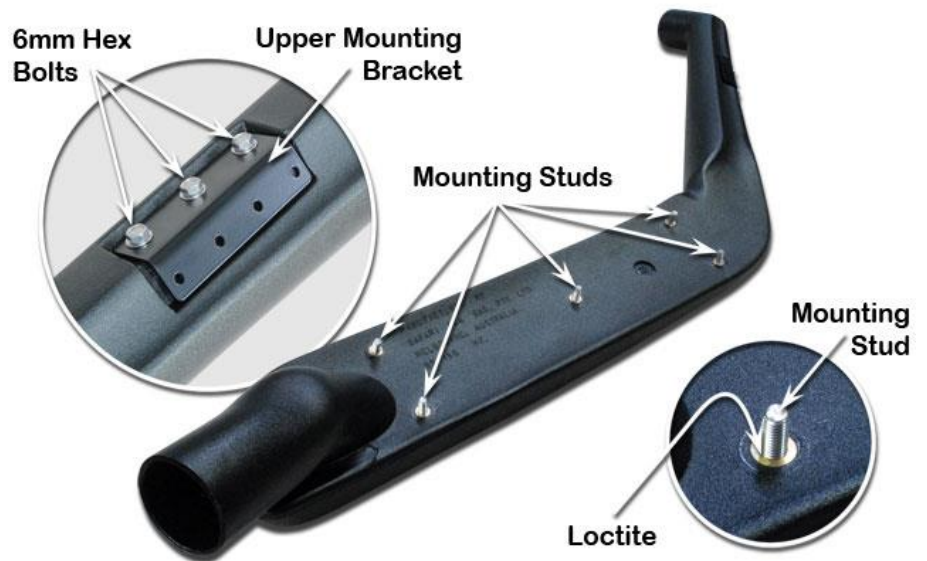
Trim

NEW ZEALAND INSTALLATIONS ONLY :
Safari have developed 2 methods of Snorkel A pillar attachment, for the conventional method please proceed with the current document alternatively please see the link below for further instructions.
www.safari4x4.co.nz/apillarmounting

6

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

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

7

Apply a strip of masking tape along the 'A' pillar and install the snorkel body (Item 1) onto the guard panel.

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

8

Remove the snorkel body (Item 1) from the guard panel and remove the upper mounting bracket (Item 3) from the snorkel body.

Position the upper mounting bracket onto the 'A' pillar and align with the previous markings on the masking tape. Mark the four mounting holes with a felt tip pen.
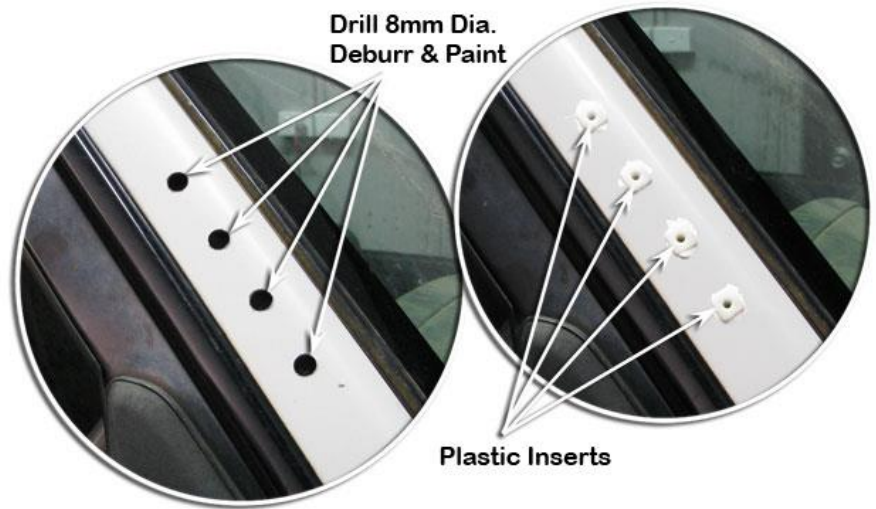
9

Drill a pilot hole in the centre of each marked hole position and use a step drill to drill to 8mm diameter.
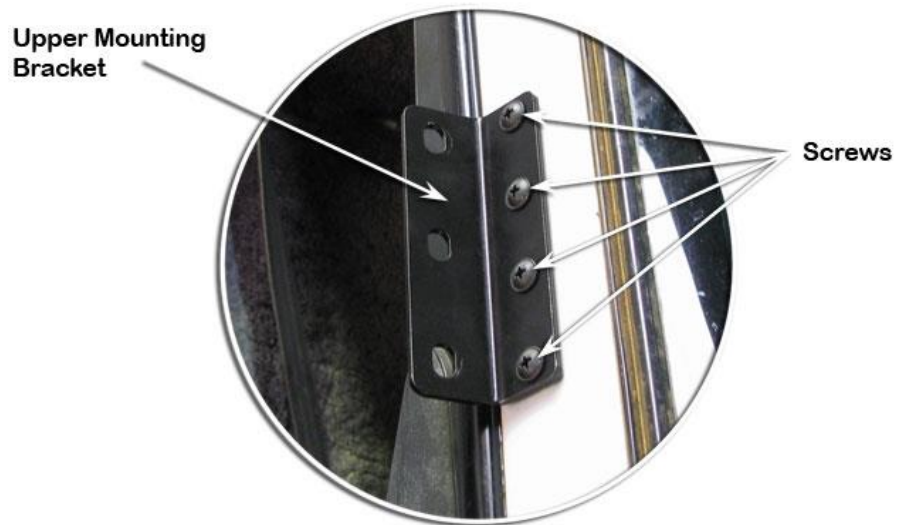
Deburr and paint holes.

Install the four plastic inserts (Item 6) into the upper mounting bracket holes in the 'A' pillar.

Drill 8mm Dia. Deburr & Paint

Plastic Inserts

10

Install the upper mounting bracket (Item 3) to the 'A' pillar with four self tapping screws (Item 5).
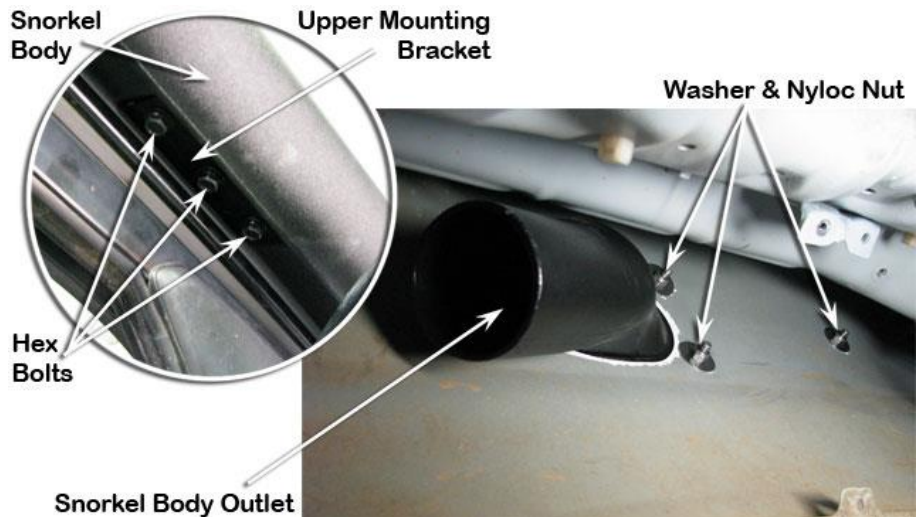
Upper Mounting Bracket

Screws

11

Install the snorkel body (Item 1) to the guard panel.

Fasten the snorkel body to the guard panel with body washers (Item 8) and Nyloc nuts (Item 9).

Fasten the snorkel body (Item 1) to the upper mounting bracket (Item 3) with three hex bolts (Item 4).
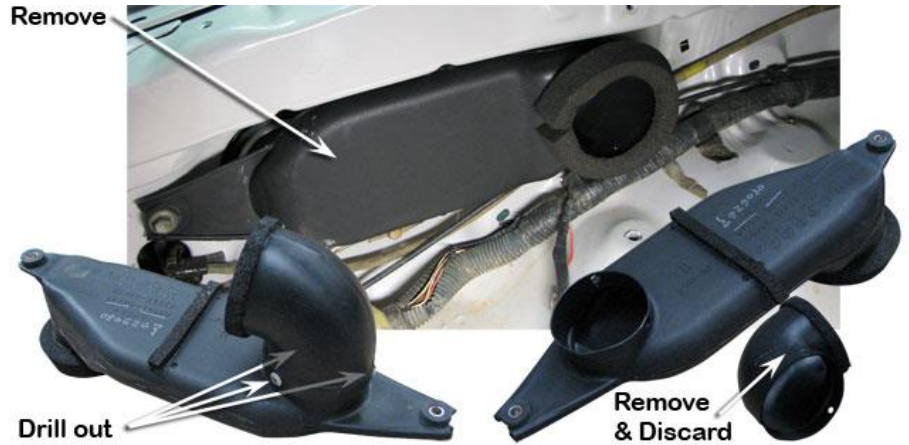
Snorkel Body

Upper Mounting Bracket

Washer & Nyloc Nut

Hex Bolts

Snorkel Body Outlet

12

Remove the air cleaner intake duct.

Drill out the three pop-rivets shown.

Remove and discard the intake elbow from the air cleaner intake duct.
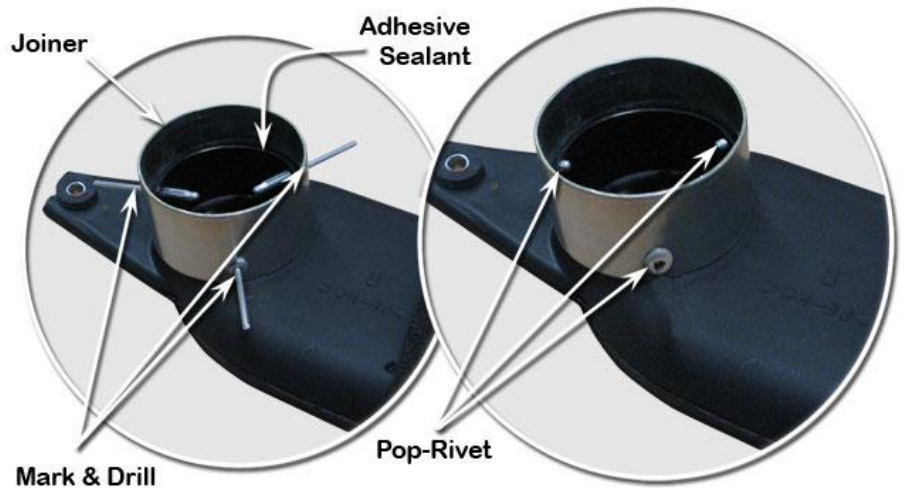

Remove

Remove

Drill out

Remove & Discard

13 Align the joiner (Item 12) over the air cleaner intake duct snout and mark the three new hole positions. Remove the joiner (Item 12) and drill the marked hole positions with a 5mm drill.

Apply Sikaflex adhesive sealant to the mating surfaces of the air cleaner intake duct snout and joiner for a watertight connection.

Install the joiner to the air cleaner intake duct snout and secure with three pop-rivets (Item 13). Wipe away excess sealant.
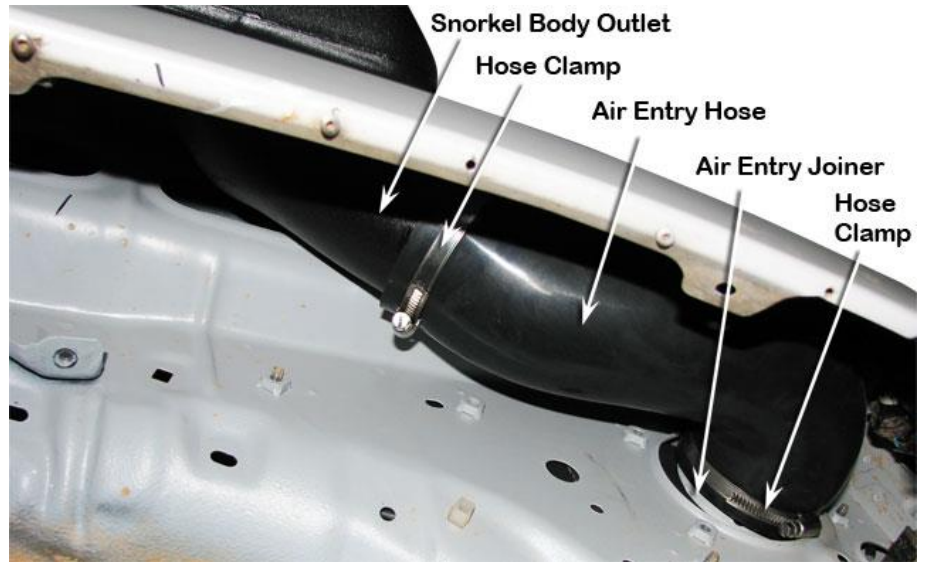
Install the air cleaner intake duct back into position.

Joiner

Adhesive Sealant

Pop-Rivet

Mark & Drill

14 Loosely install a 70/90mm hose clamp (Item 11) over each end of the air entry hose (Item 10).

Install the air entry hose between the snorkel body outlet (Item 1) and the air entry joiner (Item 12).

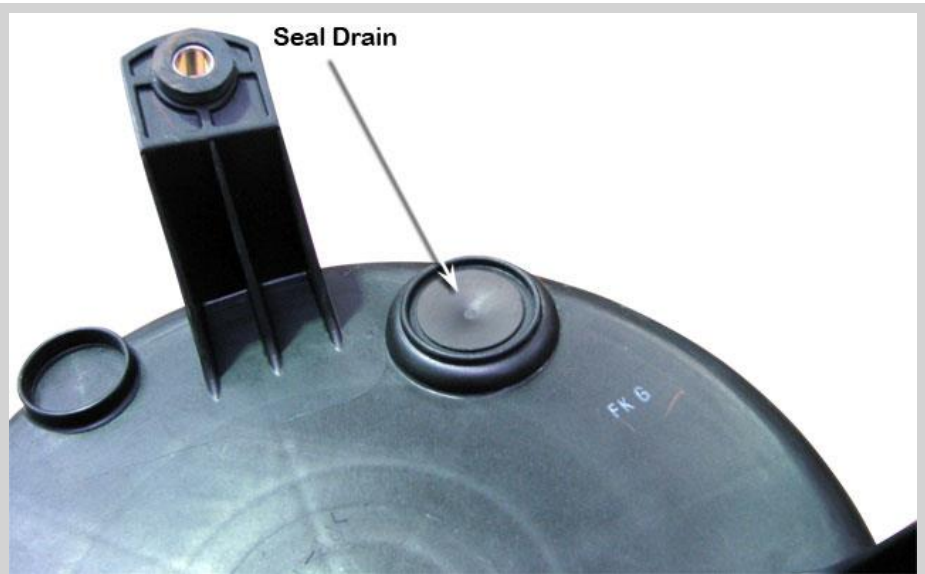Align the hose for best fit and tighten both hose clamps (Item 11).

15

Installer's Option

The air cleaner housing base/underside has a drain opening that may permit water to enter the air intake.
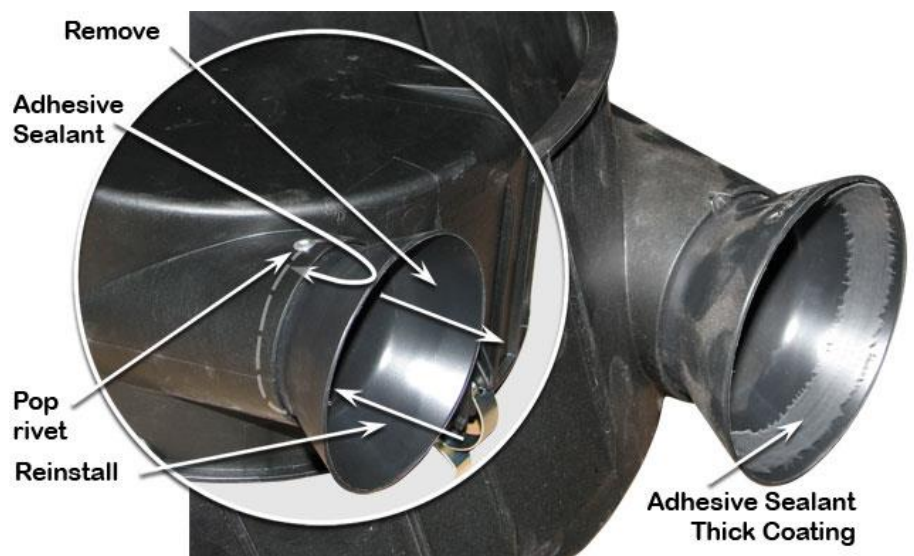
It is up to the installer to decide whether the drain should be sealed.

16 Drill out the pop rivet shown on the air cleaner base inlet. Remove the air inlet conical duct and apply adhesive sealant to the mating surfaces in order to make the joint watertight.

Reinstall the conical duct and secure with a pop rivet (Item 13).

Apply a generous amount of adhesive sealant to the conical face shown (in preparation for installation of the air cleaner base).
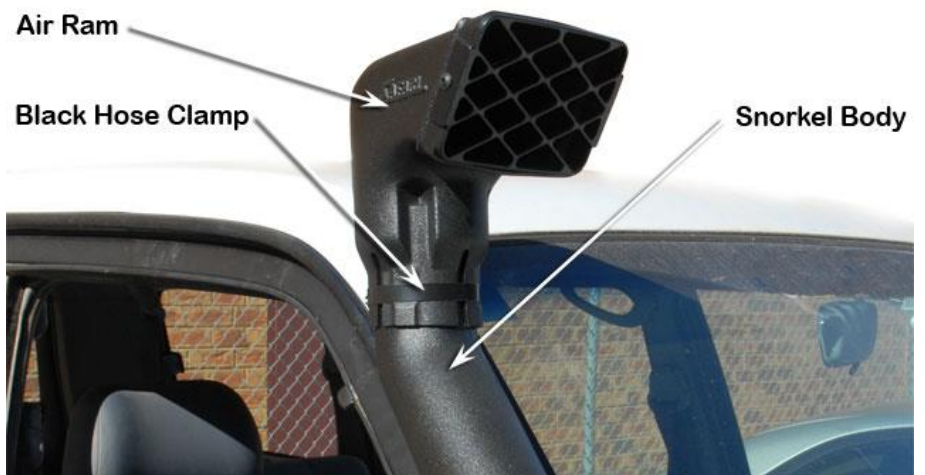
17	Apply a generous amount of adhesive sealant around the foam seal of the air entry duct as shown.	
	Install the air cleaner base with the standard mounting hardware and smooth out any excess sealant to ensure a watertight connection.	
	Install the air cleaner element, air cleaner lid and sensor wiring plugs.	
18		
	Loosely install the black hose clamp (Item 15) 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 15).	

19 Reinstall the guard liner and any other components that may have been removed in accordance with the factory service manual.

NB It is the installer's responsibility to ensure all connections are watertight.