



# SS981HF

Ford PX Ranger XL Model  
2.2L & 3.2L TDCi Diesel (P4AT & P5AT Engine)



01/03/2013

## Parts List

ITEM	PART NO.	DESCRIPTION	QTY
1	680-133-200	BODY - SNORKEL (SS980HF)	1
2	000-135-800	3 ½" AIR RAM ASSEMBLY	1
3	680-032-200	BRACKET - UPPER MOUNTING	1
4	000-002-100	BOLT - HEX - 6mm x 1.0 x 14mm (SEMS)	2
5	000-951	SCREW - S/T - 4.2mm x 13mm - S/S	3
6	000-960	INSERT - PLASTIC	3
7	000-110	STUD - 8mm x 1.25 x 25mm - S/S	4
8	000-311-300	WASHER - BODY - 8mm x 30mm - S/S	4
9	000-205-300	NUT - NYLOC - 8mm x 1.25mm - S/S	4
10	680-024-000	HOSE - AIR ENTRY	1
11	000-908	CLAMP - HOSE - 70/90mm	2
12	680-704-000	PLATE - INDICATOR SPACER	1
13	680-083-000	LOOM - INDICATOR EXTENSION 200mm	1
14	000-914/B	CLAMP - HOSE - SIZE 56 (BLACK)	1
15	680-017-000	TEMPLATE - FENDER PANEL	1



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## Installation Guide

### Fitment to:

- Right Hand Side

### Fitting Time:

- 180min

### Special Tools:

- Body Saw (reciprocating)
- Step Drill
- Files
- Masking Tape
- Loctite 243 (thread lock)
- 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 template (Item 15) are correct.**

**1** Remove the following in accordance with the factory service manual:

- RHS Mud Flap
- RHS Fender Liner
- Air Cleaner Assembly
- RHS Fender Insulator
- RHS Fender Indicator (Mounted in Fender Grille)

**2**

Remove and discard

- Air intake duct
- RHS Fender Grille



3

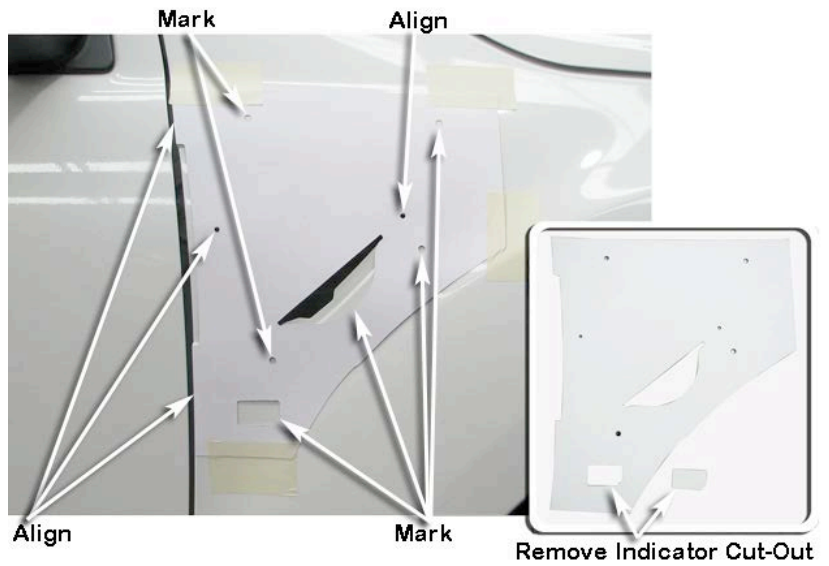
Carefully remove the pre-stamped indicator cut-out from the fender panel template (item 15) as shown.

Align the fender panel template (Item 15) with the rear edge and fender grille location holes of the RHS fender panel as shown.

Tape the template to the fender panel with masking tape.

Mark all hole positions, snorkel body outlet snout cut-out and the new indicator hole position with a felt tip pen.

Remove the template.



4

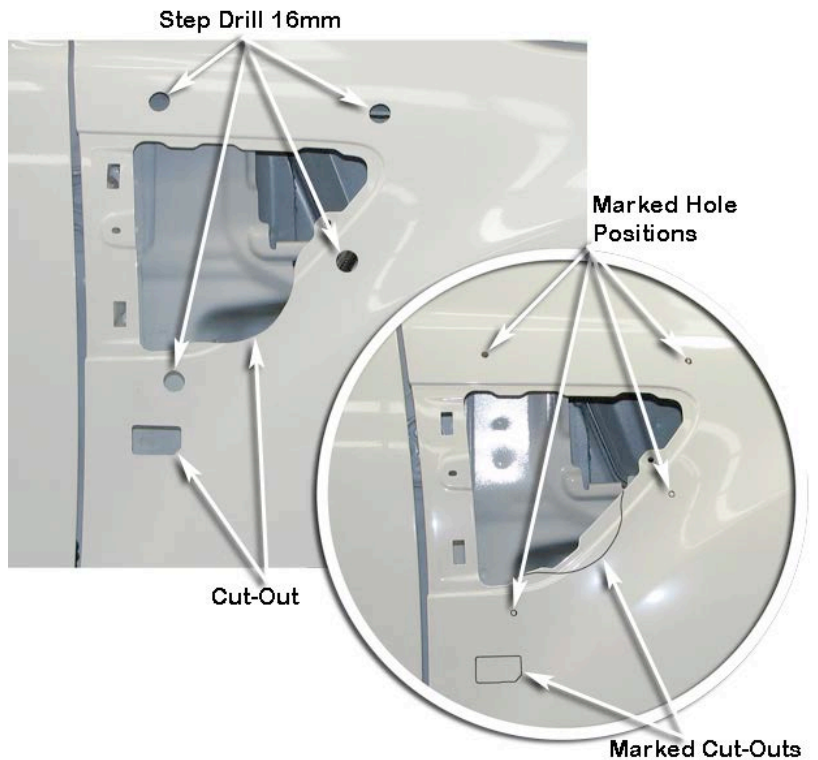
Drill a pilot hole for each of the marked hole positions.

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

Use a body saw to cut away the require section of fender panel for the snorkel body outlet snout and the new indicator hole position.

Use a file to correctly shape the new indicator hole in the fender panel (trial fit the indicator into the new hole).

Deburr and paint all holes and metal surfaces to prevent rust.

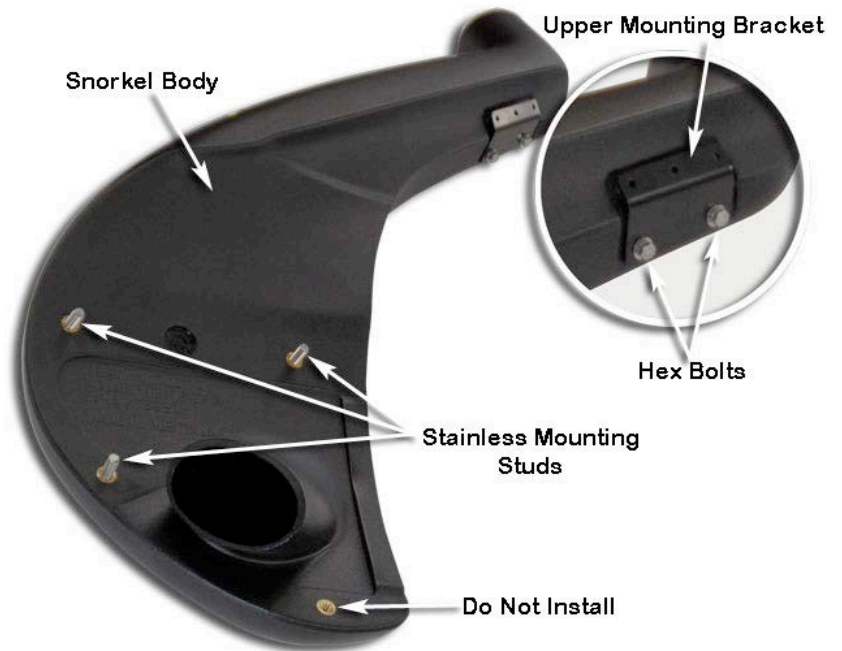


5

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

Apply Loctite 243 to three of the stainless steel mounting studs (Item 7) and install the three studs finger tight into the snorkel body (Item 1) mounting inserts shown.

Do not install the 4<sup>th</sup> mounting stud into the lower insert position



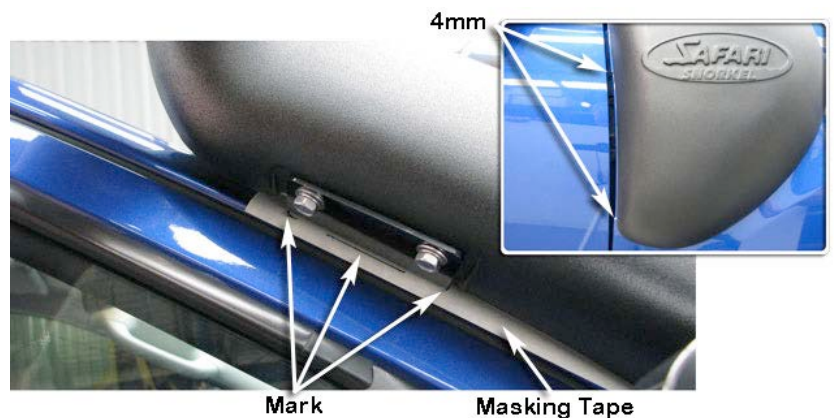
6

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

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

The snorkel body should be positioned approximately 4mm forward of the rear edge of the fender panel as shown.

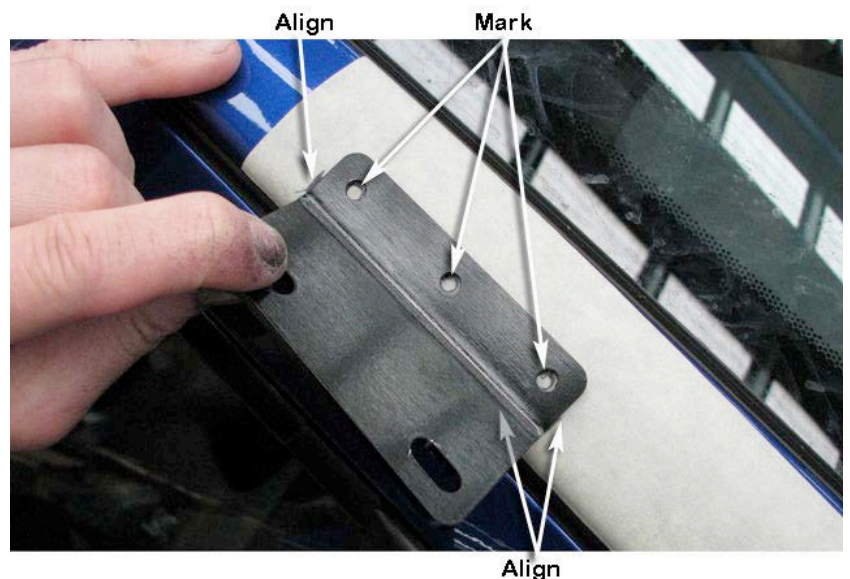
With the snorkel body correctly positioned, mark the outline of the upper mounting bracket (Item 3) onto the masking tape.



7

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

Position the upper mounting bracket (Item 3) onto the A-pillar and align the bracket with the marked bracket outline. Mark the three mounting hole positions with a felt tip pen.

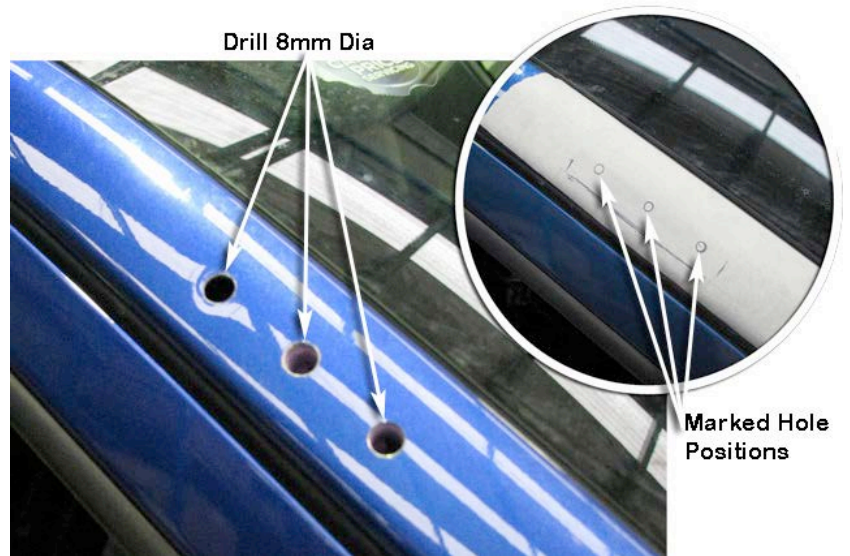


8

Drill a pilot hole at each of the three marked hole positions. Drill each hole position to 8mm diameter with a step drill or 8mm drill bit.

**Warning:** The A-pillar cavity is filled with a pink coloured resin, it may be necessary to use a small screwdriver and hammer to clear the holes for the plastic inserts (extreme care must be taken when doing this to ensure the vehicles air bags are not discharged).

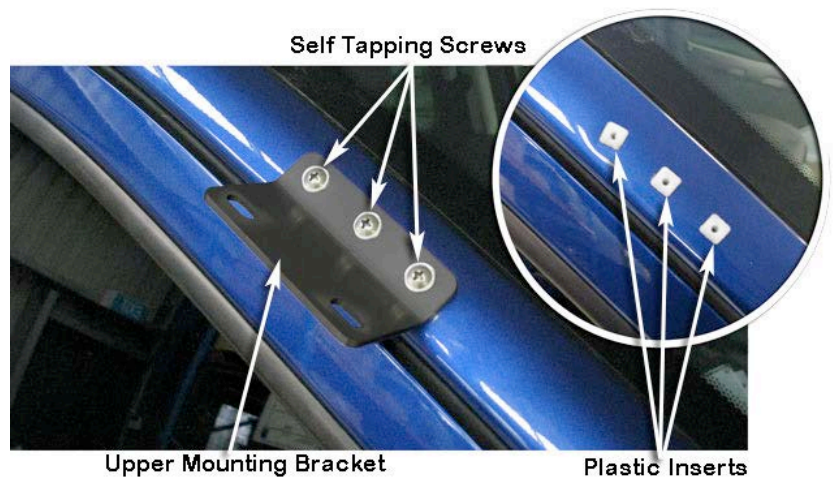
Deburr and paint holes to prevent rust.



9

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

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



10

Carefully install the snorkel body (Item 1) to the fender panel, align the snorkel body to the fender panel and upper mounting bracket.

When correctly aligned, fasten the snorkel body to the fender 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).



11

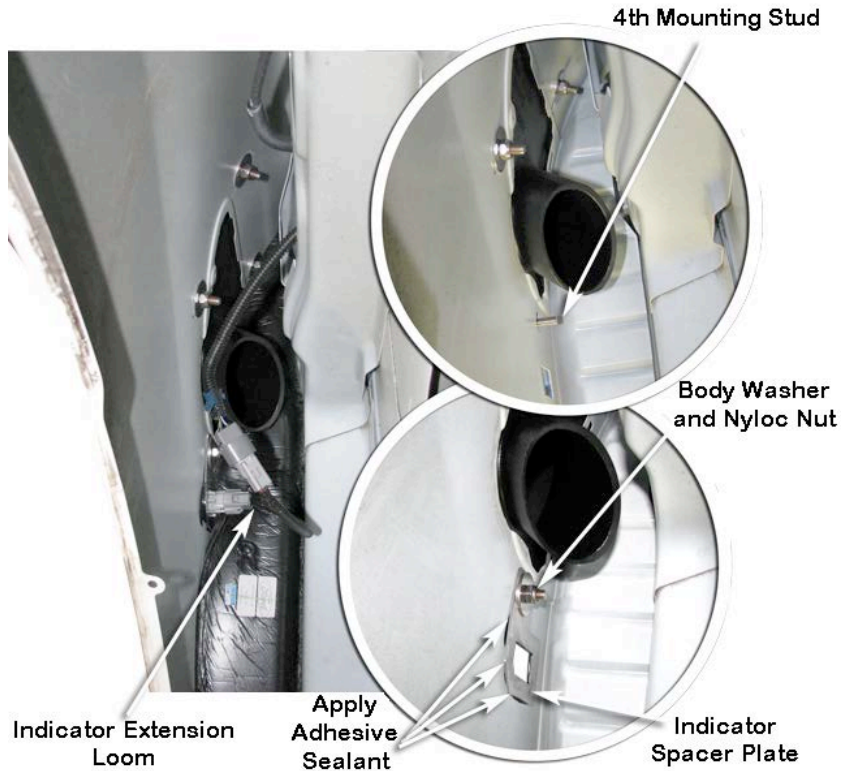
Apply Loctite 243 to the 4<sup>th</sup> mounting stud (item 7) and install the stud finger tight into the lower snorkel body mounting insert.

Check the alignment of the indicator spacer plate (item 12) to the new indicator hole position in the fender panel, if necessary file the mounting hole in the indicator spacer plate to achieve correct alignment.

Apply adhesive sealant to the indicator spacer plate and secure to the fender panel with body washer (item 8) and nyloc nut (9).

Clean-up any excess sealant.

Install the RHS fender insulator previously removed in step 1, side indicator and connect the indicator extension loom (item 13).

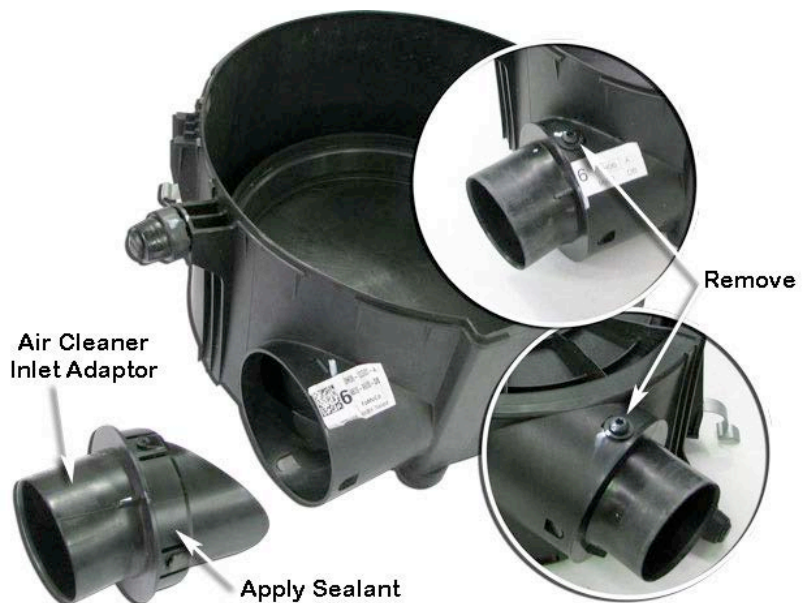


12

The air cleaner inlet adaptor must be removed and sealed.

Remove the two screws retaining the air cleaner inlet adaptor and remove the inlet adaptor, clean surfaces and apply adhesive sealant to the inlet adaptor, refit the inlet adaptor and fasten the two screws. If required apply extra sealant to ensure the connection is totally sealed

Clean any excess sealant to ensure a neat finish.

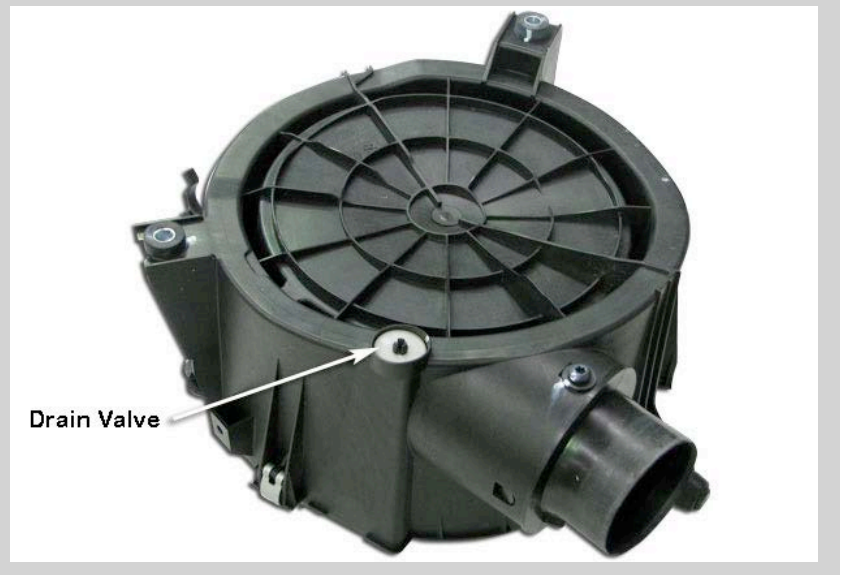


13

**INSTALLER OPTION :**

The air cleaner housing base contains a drain valve as shown. The drain valve can permit water to enter the air intake.

It is up to the installer to decide whether the drain valve should be sealed.



14

Loosely install a 70/90mm hose clamp (Item 11) over the air cleaner inlet adaptor, install the air cleaner base into the vehicle and fasten with standard mounting bolts.

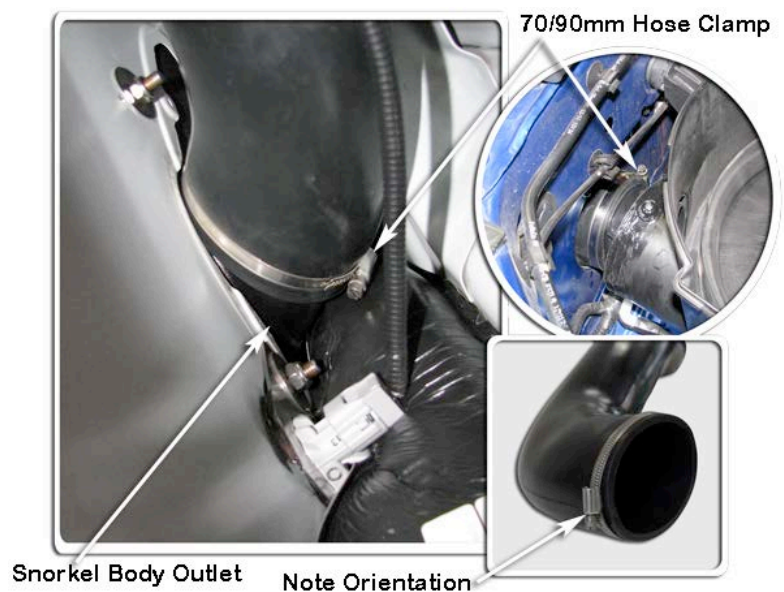


15

Shape the 70/90mm hose clamp (item 11) to the oval shaped end of the air entry hose (item 10). (Note the orientation and position of the 70/90mm hose clamp on the air entry hose).

Install the air entry hose (item 10) through the hole in the inner guard panel and onto the air cleaner inlet adaptor, install the oval shaped end of the air entry hose onto the snorkel body outlet.

Align the hose for best fitment, correctly position the 70/90mm hose clamps at either end of the air entry hose and tighten.



16

Install the black hose clamp (Item 14) loosely 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 14).



17

Install the fender liner, mud flap, air cleaner element, air cleaner lid, reconnect sensor wiring and any other items that may have been removed during the snorkel installation process.

18 **N.B: It is the installer's responsibility to ensure that all connections are water tight.**