



# SS415HF

Toyota FJ Cruiser with All Terrain Package  
1GRFE 4.0Litre-V6



15/04/2008

## Parts List

ITEM	DESCRIPTION	QTY	PART NO
1	BODY - SNORKEL (SS410HF)	1	340-133-000
2	3 1/2" AIR RAM ASSEMBLY	1	000-135-650
3	BRACKET - UPPER MOUNTING	1	340-032-000
4	BOLT - HEX - 6mm x 1.0 x 14mm (SEMS)	3	000-002-100
5	SCREW - S/T 4.2mm x 16mm	3	000-951-300
6	INSERT - PLASTIC	3	000-960
7	STUD - S/S - 8mm x 1.25 x 25mm - O/L	8	000-110
8	WASHER - BODY - 8mm x 30mm	8	000-311
9	NUT - NYLOC - 8mm x 1.25mm	8	000-205
10	HOSE - AIR ENTRY	1	340-024-200
11	CLAMP - HOSE - 90/110mm	2	000-910
12	HOSE CLAMP - SIZE 56 (BLACK)	1	000-914/B
13	TEMPLATE	1	340-017-000

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Toyota FJ Cruiser with All Terrain Package  
1GRFE 4.0Litre-V6

## Installation Guide

1

Fitment to:

- Right Hand Side

Fitting Time:

- 120min

Special Tools:

- 105mm hole saw
- step drill
- loctite(thread lock)

**Prior to commencing the installation, it is the installer's responsibility to verify that all components and particularly the template (Item 13) are correct.**

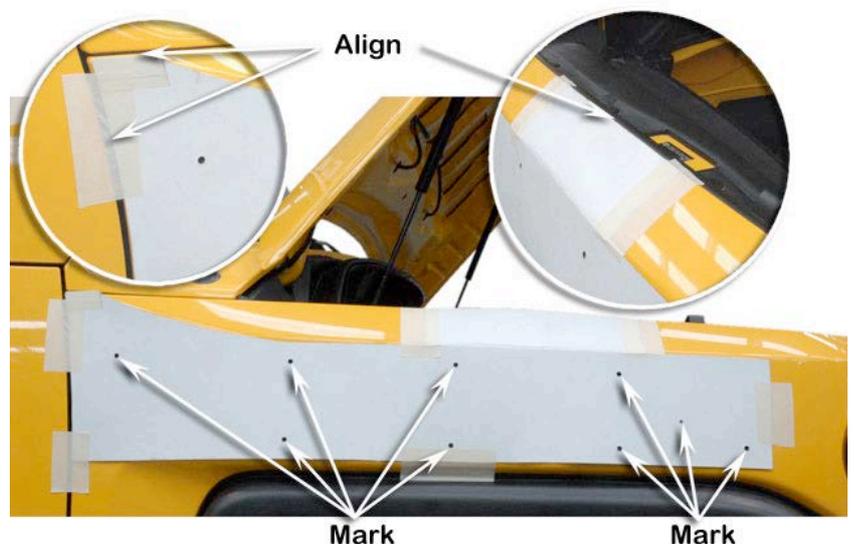
2

Remove the RHS inner fender liner, the air intake duct and the engine air intake pre-cleaner from the engine bay in accordance with the factory service manual.



3

Tape the template (Item 13) to the rear and upper edges of the right hand fender. With the template correctly positioned on the fender use a felt tip pen to mark all hole positions, then remove the template.

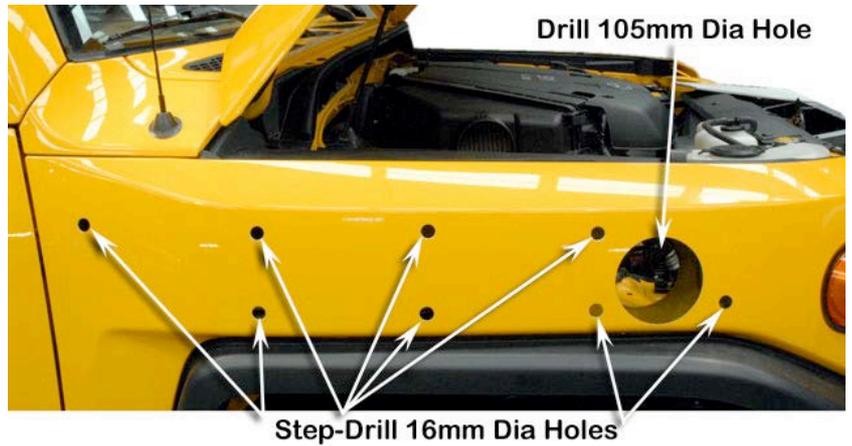


**4** Drill a pilot hole for each marked hole position.

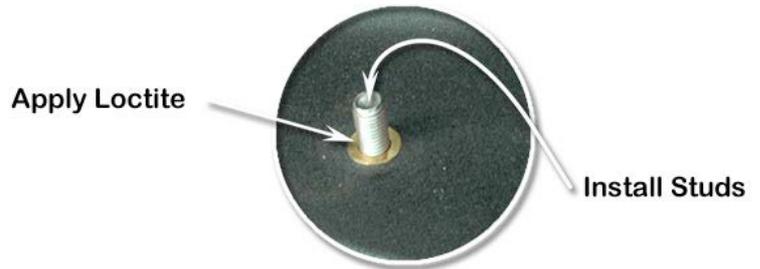
Using a 105mm hole saw, drill the snorkel body outlet hole.

Using a step drill, drill the eight mounting hole positions to 16mm.

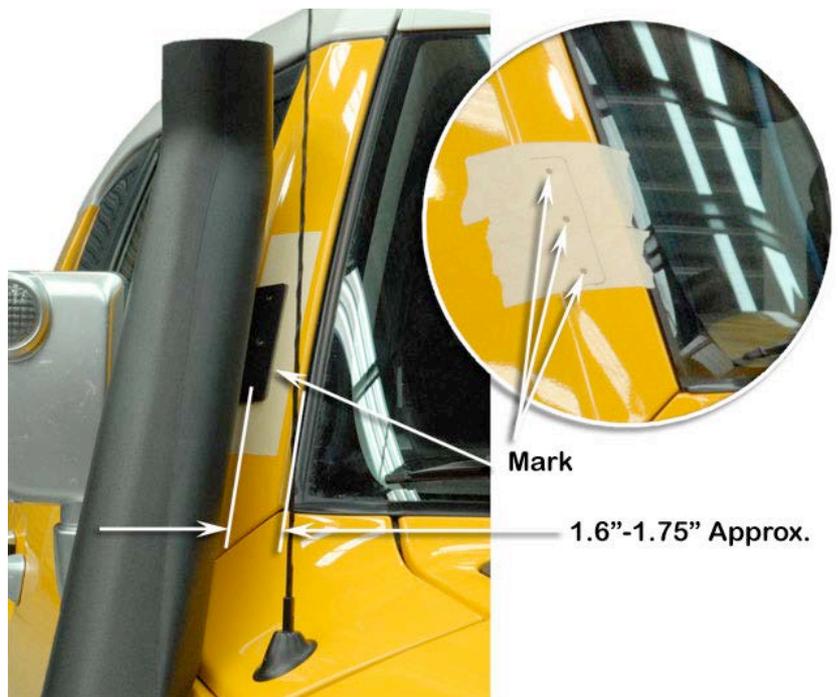
Deburr and paint holes to prevent rust.



**5** Apply loctite to all eight studs (Item 7) and install the studs into the snorkel body mounting inserts (Item 1).



**6** Place masking tape along the a-pillar trim where required and fasten the upper mounting bracket (Item 3) to the snorkel body (Item 1) with three bolts (Item 4). Carefully install the snorkel body onto the fender. With the snorkel body correctly positioned, mark the three upper mounting bracket hole positions on the 'A' Pillar trim. N.B: The mounting holes should be approx. 1.6" - 1.75" to the edge of the 'A' pillar trim.



**7** Remove the snorkel body from the fender. Remove the upper mounting bracket from the snorkel body.

**8** Drill a pilot hole for each marked hole position on the 'A' pillar trim, then drill to 8mm (deburr and paint holes to prevent rust).

**9** Install the plastic inserts (Item 6) into the 'A' pillar trim.

Install the upper mounting bracket (Item 3) and fasten into position using self tapping screws (Item 5).



**10** Carefully install the snorkel body to the fender. Align the snorkel body to the upper mounting bracket and the fender panel. When correctly aligned, fasten the snorkel body to the fender panel with body washer (Item 8) and Nyloc nut (Item 9). Fasten the snorkel body to the upper mounting bracket with hex bolts (Item 4).

**11** Remove and discard the front portion of the air intake pre-cleaner assembly shown.

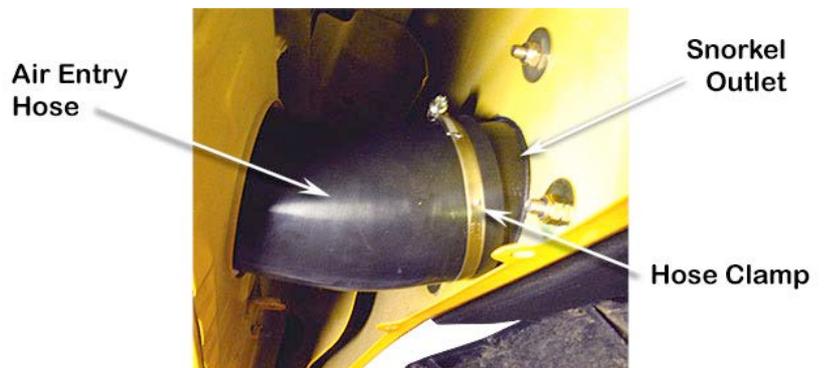
Grind the locating and retaining lugs from the front of the stock engine air intake pre-cleaner as shown. Ensure that a smooth surface is achieved.



**12** Loosely install the 90/110 stainless steel hose clamp (Item 11) over the snorkel body outlet.

Install the air entry hose (Item 10) to the snorkel body outlet.

Do not tighten the hose clamp yet.



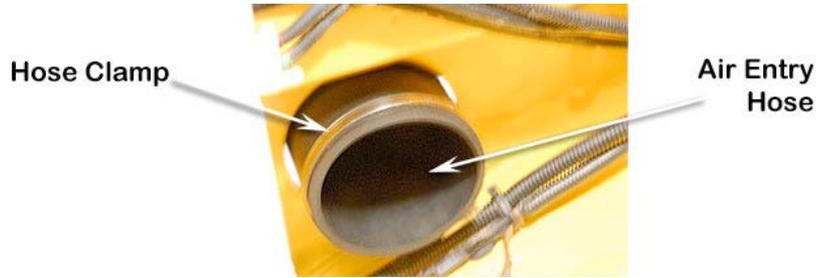
**13** Possible areas for water to enter the engine air intake are the drain holes in the air cleaner housing and the one-way drain in the pre-cleaner as shown.

It is up to the installer to determine whether these areas should be totally sealed off to prevent water from entering the air intake system when the vehicle is immersed to that depth.



14

Loosely install the 90/110 stainless steel hose clamp (Item 11) over other end of the air entry hose (Item 10).



15

Install the modified engine air intake pre-cleaner into the air entry hose (Item 10). Fasten the engine air intake pre-cleaner using the stock fasteners.

Orientate the hose to achieve the best alignment and tighten each of the 90/110mm (Item 11) hose clamps at both ends of the air entry hose.



16

Install the stock air cleaner housing and reconnect the engine air intake hose to the air cleaner assembly.



17

Loosely install the black hose clamp (Item 12) to the base of the air ram (Item 2) and install the air ram to the top of the snorkel body (Item 1).

Align the air ram and tighten the black hose clamp (Item 12).



18

Install the RHS inner fender liner and any other items that may have been removed during the snorkel installation process.

19

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