



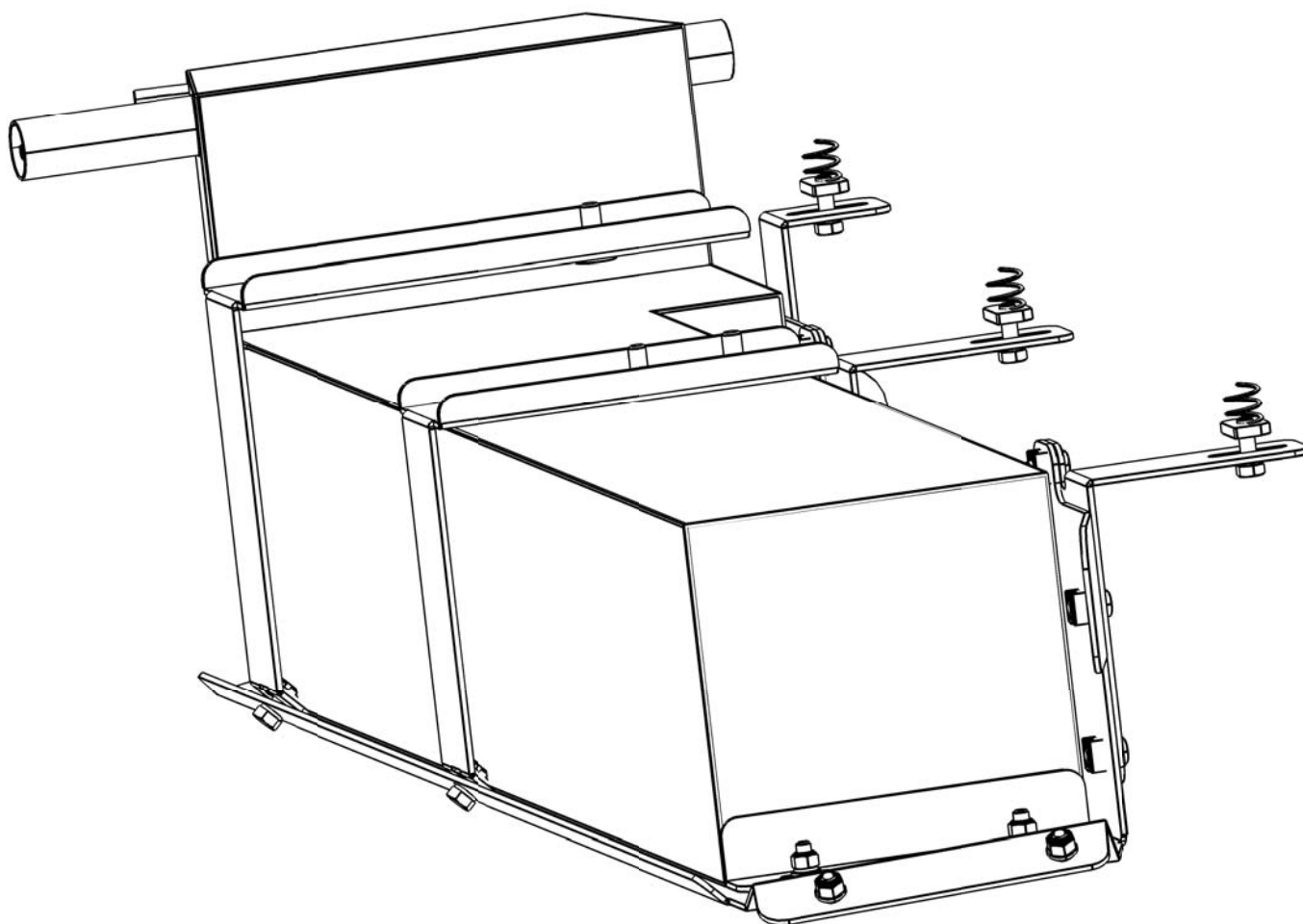
FRONT RUNNER

**JEEP WRANGLER 5 DOOR
48L ADDITIONAL FUEL TANK**

ENG

FTJW003

 **INSTALL TIME: 1.5 Hours**



IMPORTANT WARNING!

IT IS CRITICAL THAT ALL FRONT RUNNER PRODUCTS BE PROPERLY AND SECURELY ASSEMBLED AND ATTACHED TO YOUR VEHICLE. IMPROPER ATTACHMENT COULD RESULT IN AN AUTOMOBILE ACCIDENT, AND COULD CAUSE SERIOUS BODILY INJURY OR DEATH TO YOU OR TO OTHERS. YOU ARE RESPONSIBLE FOR ASSEMBLING AND SECURING ALL FRONT RUNNER PRODUCTS TO YOUR VEHICLE, CHECKING THE ATTACHMENTS PRIOR TO USE, AND PERIODICALLY INSPECTING THE PRODUCTS FOR ADJUSTMENT, WEAR, AND DAMAGE. THEREFORE, YOU MUST READ AND UNDERSTAND ALL OF THE INSTRUCTIONS AND CAUTIONS SUPPLIED WITH YOUR FRONT RUNNER PRODUCT PRIOR TO INSTALLATION OR USE. IF YOU DO NOT UNDERSTAND ALL OF THE INSTRUCTIONS AND CAUTIONS, OR IF YOU HAVE NO MECHANICAL EXPERIENCE AND ARE NOT THOROUGHLY FAMILIAR WITH THE INSTALLATION PROCEDURES, YOU SHOULD HAVE THE PRODUCT INSTALLED BY A PROFESSIONAL INSTALLER OR OTHER QUALIFIED PERSONNEL.

1 GET ORGANIZED

Here is what you are looking at::

You will need:

- ☐ Jeep Wrangler 5 Door
- ☐ a Friend
- ☐ 7 mm,10 mm, 13 mm & 17 mm Flat Wrench
- ☐ 5 & 6 mm Hex Key
- ☐ Star and Flat Screw Driver
- ☐ Marking pen
- ☐ Utility Knife
- ☐ Cable Ties (for securing fuel hose)
- ☐ Drill Machine 8.5 mm Drill Bit
- ☐ Suitable Electrical Cable and Connectors for wiring Fuel Pump, Relay and Switch

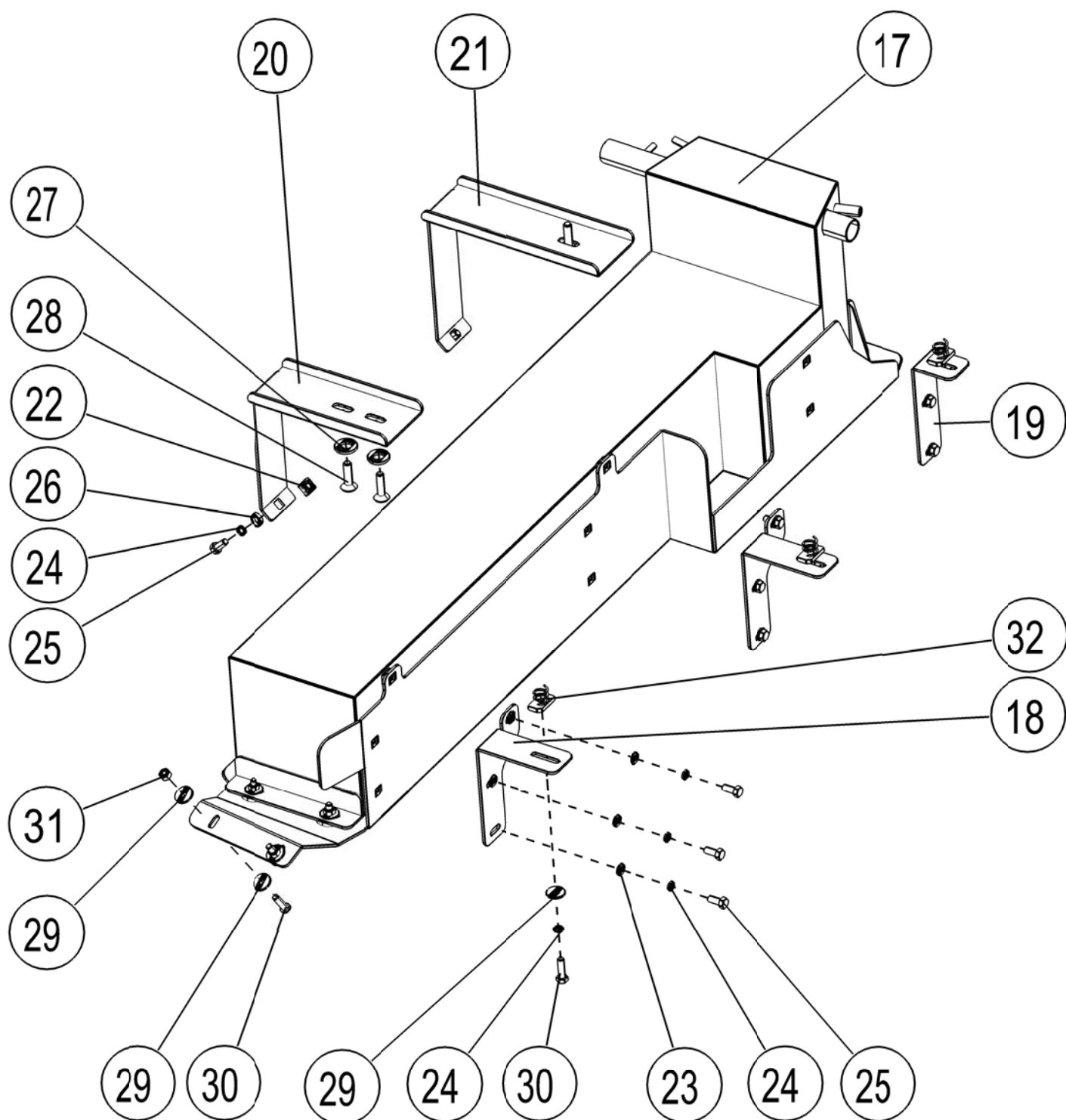
Item #	Quantity	Description
1	1	12mm FUEL HOSE - 1600mm LONG
2	1	BREATHER Y-PIPE
3	1	8mm FUEL HOSE - 360mm LONG
4	1	8mm FUEL HOSE - 575mm LONG
5	1	SWITCH
6	1	RELAY
7	8	16-25mm HOSE CLAMP
8	5	8-16mm HOSE CLAMP
9	1	FUEL PUMP
10	1	FUEL PUMP BRACKET
11	2	M6x16 HEX BOLT
12	2	M6 SPRING WASHER
13	2	M6 FLAT WASHER
14	2	M6 CAGE NUT
15	1	FUSE HOLDER
16	1	FUSE



NOTE: Please refer to corresponding Exploded View on Page 3 for the Parts Table below:

Item #	Quantity	Description
17	1	AUXILARY TANK AND GUARD
18	2	TANK FIXING BRACKET - FRONT AND MIDDLE
19	1	TANK FIXING BRACKET - REAR
20	1	TANK SUPPORT BRACKET - FRONT
21	1	TANK SUPPORT BRACKET - REAR
22	2	M8 CAGE NUT
23	8	M8 FLAT WASHER
24	13	M8 SPRING WASHER
25	10	M8x20 HEX BOLT
26	2	M8x19x2 FLAT WASHER
27	3	M16 FLAT WASHER
28	3	M10x40 COUNTERSUNK BOLT
29	7	M8x25x2 FLAT WASHER
30	5	M8x30 HEX BOLT
31	2	M8 NYLOC NUT
32	3	M8 SPRING NUT

1 GET ORGANIZED CONT...

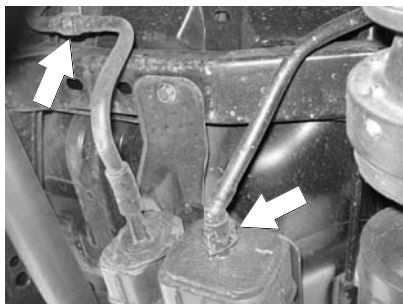


(A) Familiarize yourself with the parts and then step away from the work area and read through these instructions from beginning to end. Take a moment as a little prep now may save you a lot of time later.

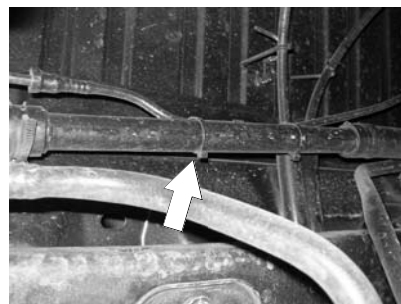
2 INSTALL BRACKETS

- (A) Petrol Vehicles Only:
Locate the Vapor Box underneath the rear of your vehicle. Disconnect the two pipes as indicated by the arrows and remove the Vapour Box.

Models from 2012 on will have a third thinner pipe connected to the Vapor Box, this also needs to be disconnected and will be attached to the Auxiliary Tank in Step 5B.

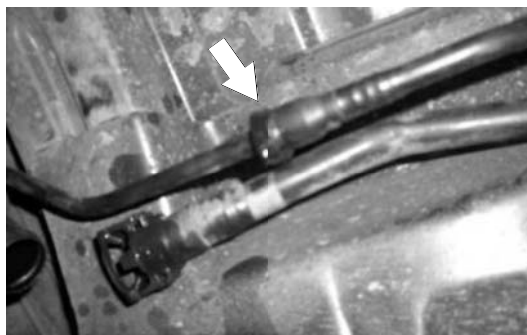


- (B) Remove the Original Steel Filler Pipe that runs between the Fuel Tank and Filler Pipe.



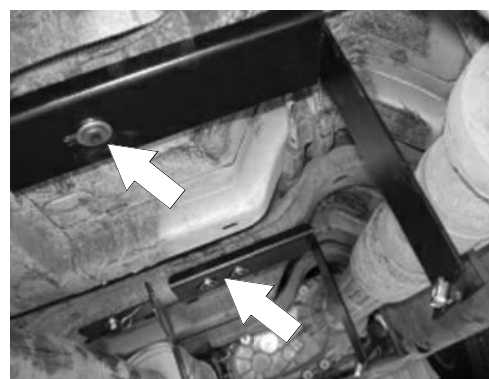
- (C) Disconnect the Breather Pipe (Already done in Step 2A for Petrol Vehicles) and the Thinner Pipe as indicated by the arrow. Re-route both pipes behind the hand brake cables and reconnect.

Note: The First Picture (Below Left) shows the Breather Pipe having already been disconnected.



- (D) Fit the two Tank Support Brackets (Items 20 & 21) as shown, using the three M10 x 40 Countersunk Bolts and M16 Flat Washers (Items 27 & 28). The bolts fasten into tapped holes within the vehicles body.

Ensure that there is a 20mm gap between the two Support Brackets and the vehicles Prop Shaft. Bend the Support Brackets by hand if required.



2 INSTALL BRACKETS CONT...

- (E) Fit the three Fixing Brackets (Items 18 & 19) as shown, using the M8 x30 Hex Bolts, M8 x25 x2 Flat Washers, M8 Spring Washers and M8 Spring Nuts (Items 24, 29, 30, 32).

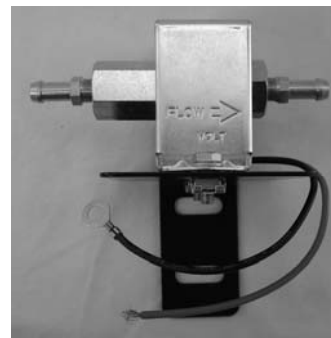
The Spring Nuts can be placed through the gaps/holes in the vehicles chassis using the attached wire to manipulate them into position.



3 INSTALL FUEL PUMP & RUN WIRING

- (A) Remove the Rubber Plugs from the inlet and outlet of the Fuel Pump and assemble the Brass Fittings.

Mount the Fuel Pump (Item 9) to the Pump Bracket (Item 10) using the two M6 Cage Nuts, M6 Flat Washers, M6 Spring Washers and M6 x 16 Hex Bolts (Items 11, 12, 13).



- (B) Loosen the bracket supporting the two Handbrake Cables and mount the Fuel Pump and Bracket as shown.



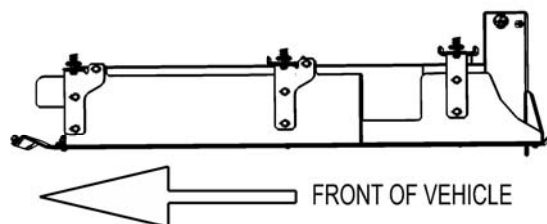
- (C) Run and secure two lengths of suitable wire (one positive, one negative) in sleeving from the Fuel Pump to the front of your Vehicle. The wires will be connected to a relay at a later stage.

4 FIT AUXILIARY TANK

- (A) Remove all masking tape from the Auxiliary Tanks inlet and outlet pipes.

The Tank Guard comes loosely assembled to the Fuel Tank. Lift the Tank and Guard into position, fitting the two Original Filler Pipes and lining up the mounting holes in the Tank Guard with the holes in the brackets mounted earlier.

Hand tighten using the M8x20 Hex Bolts, M8 Spring Washers and M8 Flat Washers (Items 23, 24, 25) - Note: The two Thick M8 Flat Washers (Item 26) get used on the two Support Brackets (Items 20 & 21).



- (B) Push the Tank and Guard assembly forward until the front of the Tank Guard knocks up against the Gearbox Skid Plate/Guard. Using the holes in the Tank Guard as a guide, drill two 8.5mm holes into the Gearbox Skid Plate/Guard using a drill machine and 8.5mm drill bit.

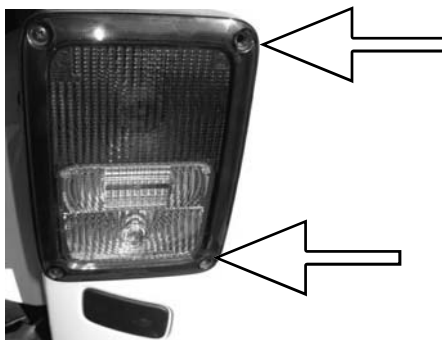
Fasten the Tank Guard to the Gearbox Skid Plate/Guard using two M8x30 Button Head Bolts, two M8 Nyloc Nuts and four M8x25x2 Flat Washers. (Items 29, 30, 31)

Tighten all bolts.



5 CONNECT FUEL HOSES

- (A) Using a star screwdriver loosen the two screws as indicated by the arrows and remove the left rear Taillight Cluster



5 CONNECT FUEL HOSES

- (B) Connect all Fuel Pipes as explained below:

Connect Original Fuel Pipe from Original Tank using original hose clamp.

Connect Original Fuel Pipe from Filler Neck using original hose clamps

Use 12mm Fuel Hose - 1600mm Long - Item 1

Connect one end of the Fuel Hose to Tank using a 16-25mm (Item 7) Hose Clamp and refer to Steps 5C for further instructions.

Use 8mm Fuel Hose - 575mm Long - Item 4

Connect Fuel Hose from Banjo Fitting to Input of Fuel Pump. Fasten using 8-16mm Hose Clamps (Item 8).

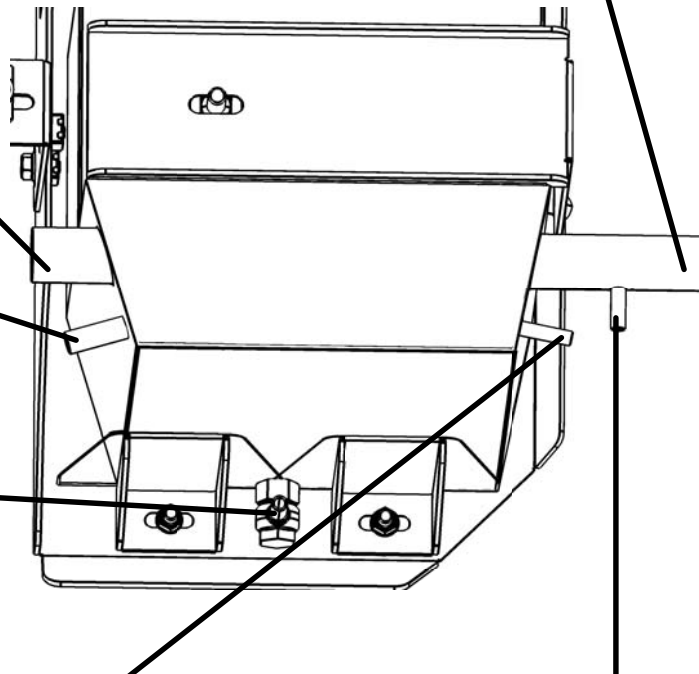
Ensure Fuel Hose is clear of Exhaust.

Cut off the fitting from Third Thinner Pipe that was connected to the Vapor Box (Refer to Step 2A) and fasten the Pipe to the Fuel Tank using an 8-16mm Hose Clamp (Item 8).

If not applicable, plug/block-off pipe on Fuel Tank.

Use 8mm Fuel Hose - 360mm Long- Item 3

Connect to Output from Fuel Pump using 8-16mm Hose Clamps (Item 8)



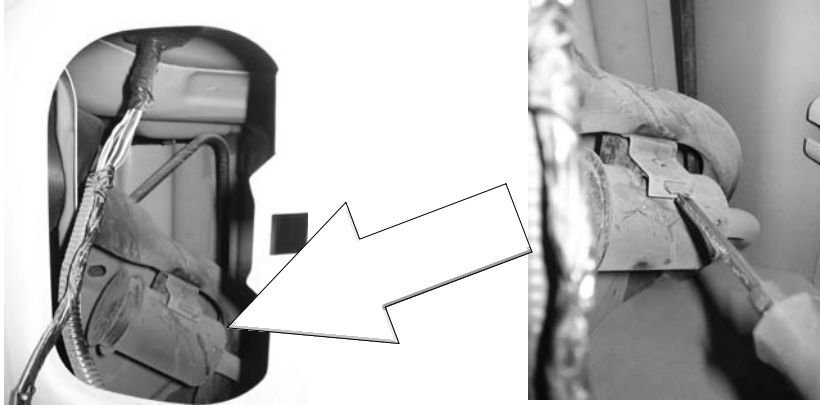
- (C) Feed the 1600mm Long - 12mm Fuel Hose (Item 1), already connected to the Fuel Tank in Step 5B, through to the Left Hand Side Rear Wheel Arch. Run the hose along the body and up into the cavity behind the Rear Taillight Cluster that you removed in Step 5A. Remember to secure the hose in position as you go.



5

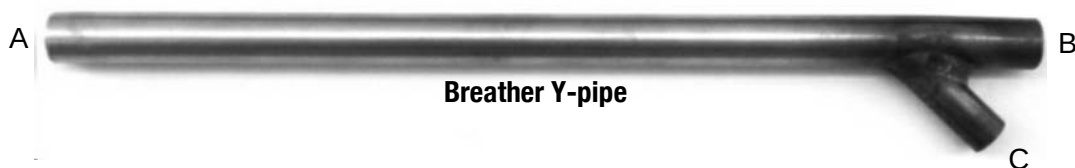
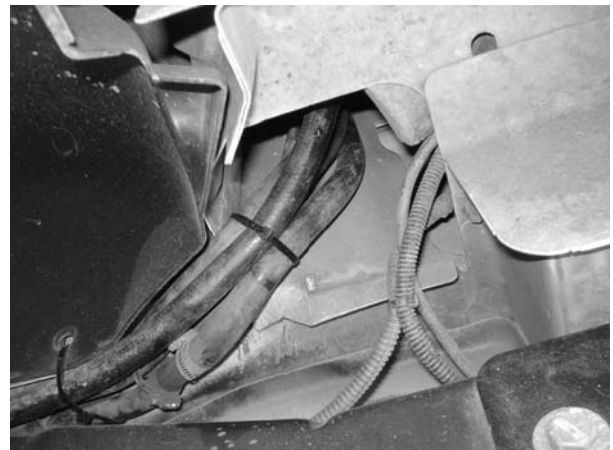
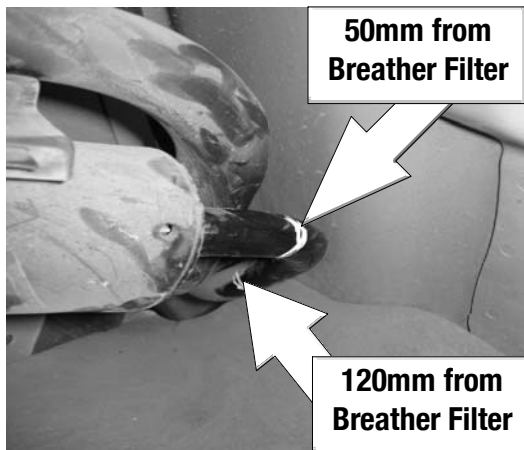
CONNECT FUEL HOSES CONT...

- (D) Looking into the cavity behind the Taillight, Brake the Breather Filter off from its support tab using a screwdriver and bend the remaining section of tab out of the way



- (E) Still working inside the Taillight Cavity, mark the Original Breather Pipe as indicated by the two arrows and white lines. Go to the Left Hand Wheel arch and pull the Original Breather Pipe you just marked out enough to cut the pipe on the first/lower marking. From inside the Taillight Cavity, feed end "A" of the Breather Y-pipe through the hole into the Left Wheel Arch. Connect end "A" to the Original Breather Pipe using a 16-25mm Hose Clamp (Item 7). Feed the Pipe assembly back into Cavity.

Remove the Breather Filter with section of pipe still attached and make the second cut along the top marking.



5 CONNECT FUEL HOSES CONT...

- (F) Secure the Breather Filter to end "B" of the Breather Y-pipe using 16-25mm Hose Clamp (Item 7).

Loop the 12mm Fuel Hose (Item 1, that you ran from the Auxiliary Tank in Step 5C) over the Filler Neck as shown and secure to end "C" of the Breather Y-pipe using a 16-25mm Hose Clamp (Item 7).

Secure the Breather Filler as high up into the top right hand corner of the Taillight Cavity as shown.

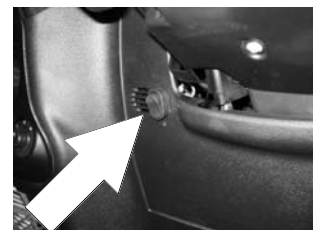
Ensure all Hose Clamps are tight and replace Rear Taillight Cluster



6 COMPLETE INSTALLATION

- (A) Find a suitable position to mount your Switch for the Fuel Pump. We recommend to the side of the Steering Column next to the Small Air Vent. Wire up the switch, relay, fuse holder and Fuel pump (Items 5, 6, 9, 10, 15, 16).

Finally check that all Bolts, Nuts and Hose Clamp are properly secure.



Congratulations, you have completed your installation. Take a step back and admire your work. Good Job!

7 INSTALL OTHER VEHICLE AND RACK ACCESSORIES

- (A) Now's the time to visit your favorite Front Runner dealer in person or online.