ARB FRONTIERTANK

Part Number:	**TAD111**
Product Description:	**FRONTIER SERIES POLYMER FUEL TANK 125L**
Suited to vehicle/s:	**MITSUBISHI TRITON 2006 ML ON ALL DIESEL MODELS** **MY22 ON MODELS NOTE FITMENT DETAILS ON PAGES 7 & 8**

WARNING

NOTE THE FOLLOWING:

- This product must be installed exactly as per these instructions using only the hardware supplied.
- In the event of damage to any component, contact your nearest authorised ARB stockist. Repairs or modifications must not be attempted.
- Do not use this product for any vehicle make or model, other than those specified by ARB.
- This product is designed to carry diesel fuel only and is not suitable for use in petrol applications.
- When working with fuel, ensure correct work practices and suitable PPE in employed.
- Contain any spills and dispose of correctly.
- Do not remove labels from this product.
- This product or its fixing must not be modified in any way.
- The fuel gauge and distance to empty indicator may vary from factory condition.
- The installation of this product may require the use of specialized tools and/or techniques
- It is recommended that this product is only installed by trained personnel
- State regulations vary, please check with your local authorities regarding documentation of this installation.
- Biodiesel fuels do not conform to a mandatory code of practice regarding the chemical make-up of the fuel, therefore use of biodiesel is not recommended in this tank.
- These instructions are correct as at the publication date. ARB Corporation Ltd. cannot be held responsible for the impact of any changes subsequently made by the vehicle manufacturer
- During installation, it is the duty of the installer to check correct operation/clearances of all components
- Work safely at all times
- Unless otherwise instructed, tighten fasteners to specified torque

ARB 4x4 ACCESSORIES

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GENERAL CARE AND MAINTENANCE

By choosing a Frontier Series fuel tank, you have bought a product that is one of the most sought after 4WD products in the world. Your fuel tank is manufactured from a High Density Poly Ethylene (HDPE) product that has superior cross-linking qualities. This cross-linking polymer provides high impact resistance, high strength and rigidity and will not be affected by harsh chemicals and minerals. It is engineered to be a reliable high-quality accessory that represents excellent value. To keep your fuel tank in original condition it is important to care and maintain it following these recommendations:

- It is recommended that following exposure to salt and or other contaminants, the fuel tank mounting straps, and fuel sender mounting area be thoroughly rinsed to prevent corrosion.
- As part of any Pre-Trip Preparation, or on an annual basis, it is recommended that a thorough visual inspection of the vehicle is carried out, making sure that all bolts and other components are torqued to the correct specification. Also check that all wiring sheaths, fuel line connectors, and fittings are free of damage. Replace any components as necessary. This service can be performed by your local authorized ARB Stockist.

FITTING REQUIREMENTS

REQUIRED TOOLS FOR FITMENT OF PRODUCT:

BASIC TOOLS KIT	**HOSE CUTTERS**
VEHICLE HOIST OR HYDRAULIC JACK AND STANDS	**LIFTING EQUIPMENT SUITABLE FOR SUPPORTING FUEL TANKS**
FUEL SENDER REMOVAL TOOLS	**FUEL TRANSFER EQUIPMENT**
ANGLE GRINDER/HACKSAW	**EMERY PAPER/FILE**

HAVE AVAILABLE THESE SAFETY ITEMS WHEN FITTING PRODUCT:

Protective eyewear 	**Hearing protection** 

NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.

FASTENER TORQUE SETTINGS:

SIZE	Torque Nm	Torque lbft
M5	2.1Nm	1.6lbft
M6	9Nm	7lbft
M8	22Nm	16lbft
M10	44Nm	32lbft
M12	77Nm	57lbft

PARTS LISTING-TAD111BK			
APPLICATION.	**PART NO.**	**QTY**	**DESCRIPTION**
FRONTIER SERIES FUEL TANK INSTALLATION	**TAD111**	**1**	**POLYMER FUEL TANK**
	BP80257	**1**	**STRAP KIT TRITON – 2 PART KIT**
	BP80273	**1**	**INSULATOR KIT TRITON**
	BP80154	**0.8**	**STRAP RUBBER 40MM**
	BP80060	**0.85**	**12MM FUEL HOSE**
	BP80308	**0.85**	**10MM FUEL HOSE**
	BP80094	**6**	**M5 X 12 SEMS PAN HEAD**
	BP80111	**1**	**35MM HOSE BARB JOINER**
	BP80054	**2**	**#24 HOSE CLAMP SUIT 35MM HOSE**
	BP80053	**2**	**HOSE CLAMP #10 SUIT 12MM HOSE**
	BP80316	**4**	**10MM HOSE CLAMP**
	BP80310	**1**	**WIRE FLOAT ARM TRITON**
	BP80324	**1**	**CIRCLIP**
	BP80315	**1**	**PICK UP TUBE**
	BP80160	**1**	**GAUGE CAUTION STICKER**
	BP80224	**1**	**STICKER BUMPER ARB FRONTIER**
	3789636	**1**	**INSTRUCTIONS**

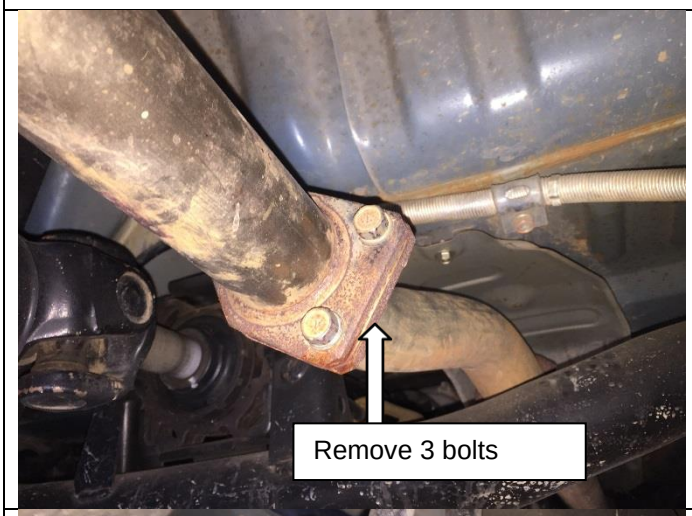
REMOVAL OF ORIGINAL FUEL TANK

Remove the black plastic trim from the LHR wheel arch by first removing the plastic rivets.

To release the rivets, pull the inner clip part of the way out, then pull the outer clip.

Remove the screw bolts securing the guard liner to the outer flare or panel.

Disconnect the 35mm fuel filler hose, the 16mm breather hose and the 6mm rollover vent hose from the steel filler neck. Retain the hoses and clamps for the installation process.



Remove the three bolts from the exhaust flange located near the centre bearing. Retain the bolts and gasket for the installation process.

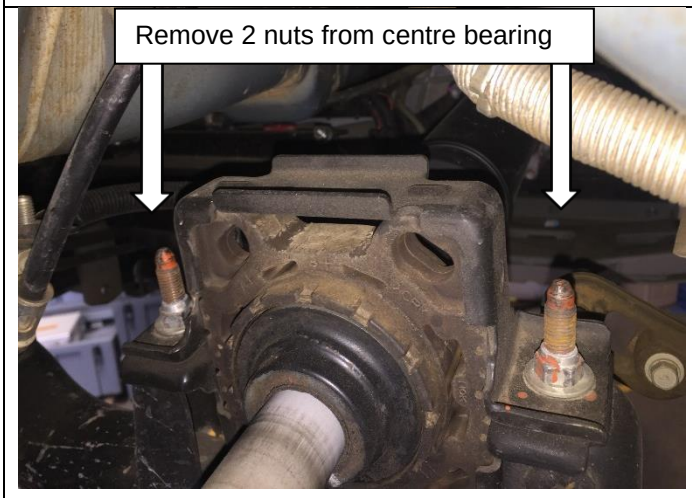
Whilst supporting the rear section of exhaust, disconnect the three rubber exhaust hangers by lubricating them and sliding them off the hook attached to the chassis.

Retain the hangers for the installation procedure.

Remove the rear section of exhaust from the vehicle and store in a safe place until the installation of the tank is complete.

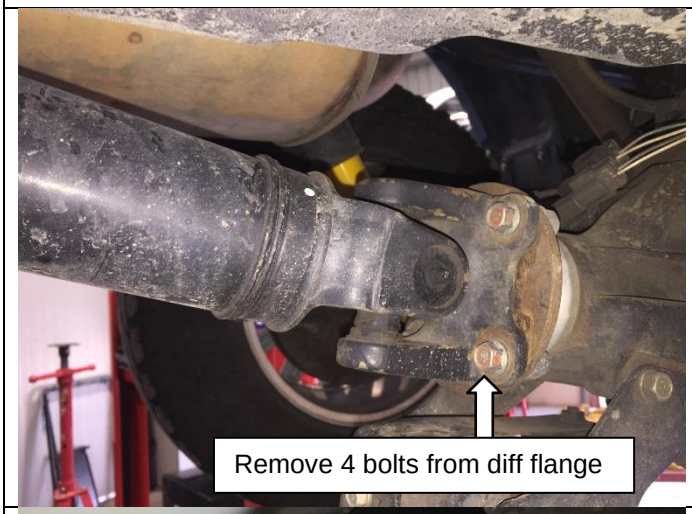
REMOVAL OF ORIGINAL FUEL TANK

Whilst supporting the rear driveshaft, remove the six nuts securing the rear driveshaft to the gearbox output. Retain the nuts and washers for the installation process.



Remove two nuts securing the centre bearing to the chassis.

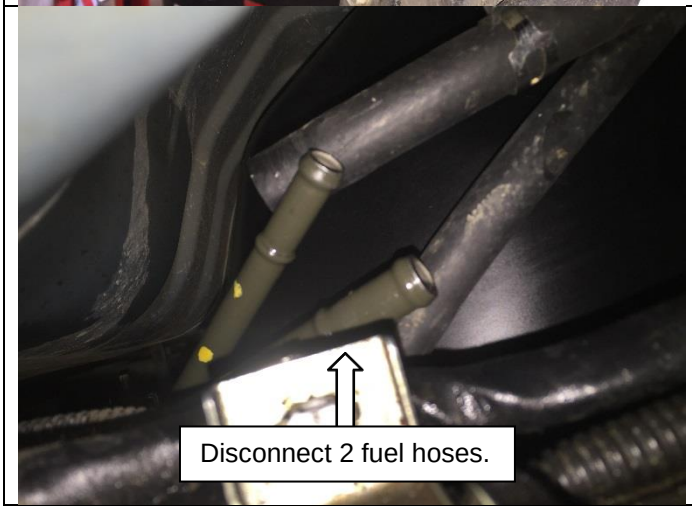
Retain the nuts and washers for the installation process.



Remove the four bolts securing the driveshaft to the diff flange.

Retain the nut, bolts and washers for the installation process.

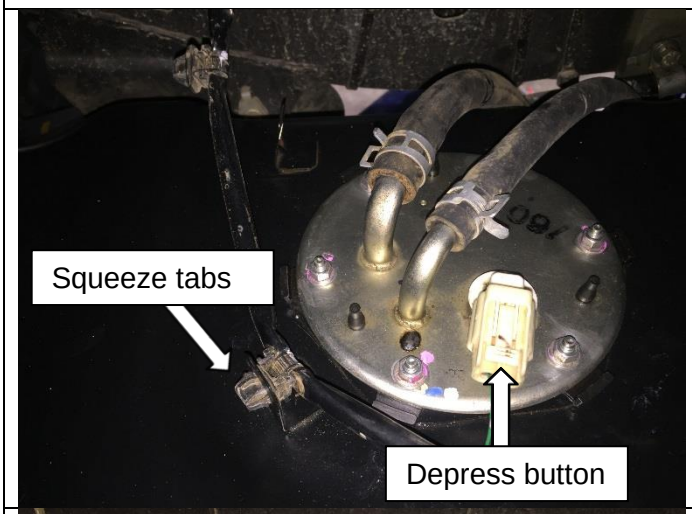
Remove driveshaft from vehicle and store in a safe place untill the installation of the tank is complete.



Remove the two spring clips from the fuel lines located at the front left corner of the fuel tank.

Disconnect the 10mm and 12mm hoses from the steel pipes on the chassis.

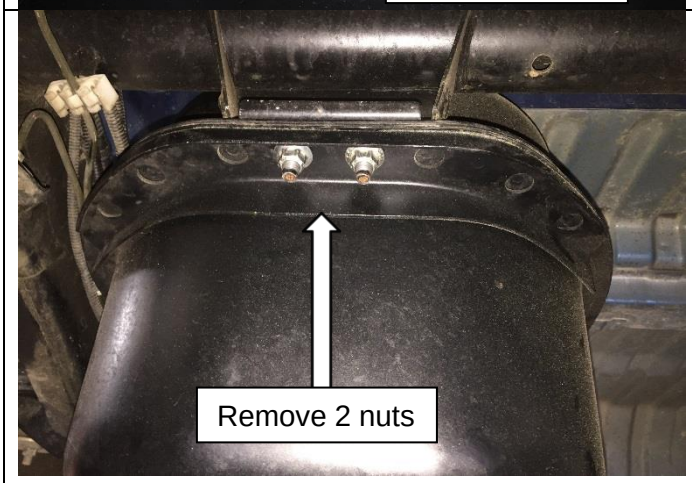
REMOVAL OF ORIGINAL FUEL TANK



NOTE: Whilst lowering tank it will be necessary to disconnect the sender wiring from the top of the tank.

To disconnect, press the button in the middle of the plug.

Two wiring harness retaining clips will also need to be disconnected. To disconnect clips, squeeze the two tabs together on the back of the clip.



Place a jack or support under the tank, remove the two nuts at the rear of the tank.

Retain the nuts for the installation process.

Remove the two nuts at the front of the tank.

Retain the nuts for the installation process.

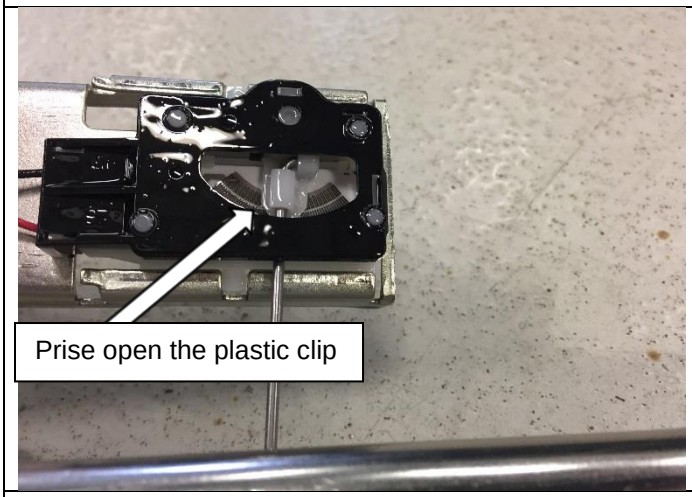
Remove and discard the two hoses from the fuel sender.

Remove the fuel sender from the tank, retain the sender and gasket for the installation process.

REMOVAL OF ORIGINAL FUEL TANK

Remove fill hoses from the original fuel tank, retain the hoses and clamps for the installation procedure.

INSTALLATION PROCEDURE



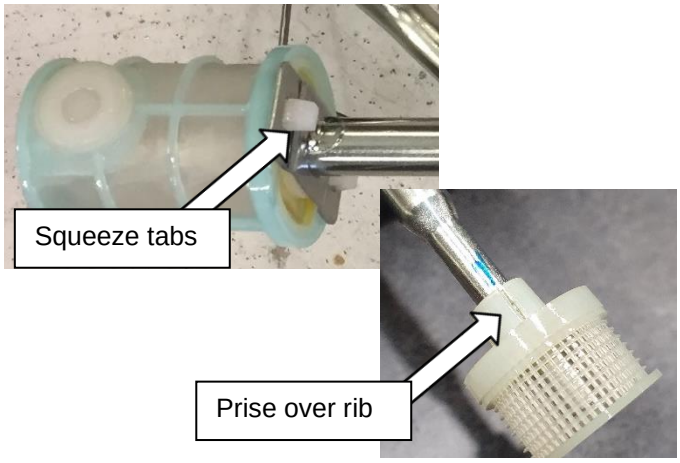
After removing the fuel sender from the original tank, it is necessary to carry out a modification prior to installing it into the new tank.

Remove the wire float arm from the fuel sender by gently prising open the white plastic clip and pulling wire out of retainer.

Remove the float from the float arm by grinding away the crimped end of the float arm.

Retain the float for the installation process.

Discard the float arm.



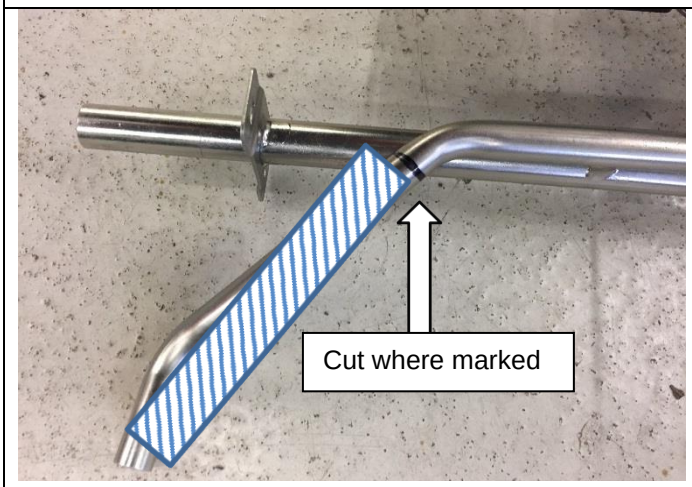
Remove the pickup filter to prevent damage during tube modification.

PRE MY22

Remove the pickup filter by squeezing the 2 tabs that pass through the metal bracket.

MY22 ON

Gently prise the filter past the pickup tube rib.



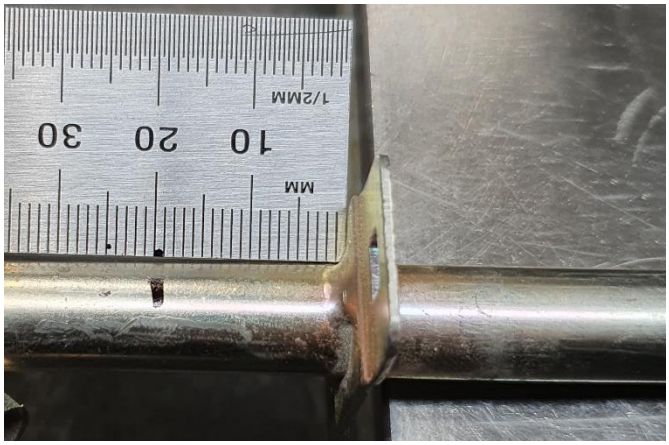
Clean all fuel from the fuel sender.

Remove the steel portion of return tube where shown and discard.

Take care not to damage the pickup tube.

Clean all debris from sender and pickup assembly.

INSTALLATION PROCEDURE

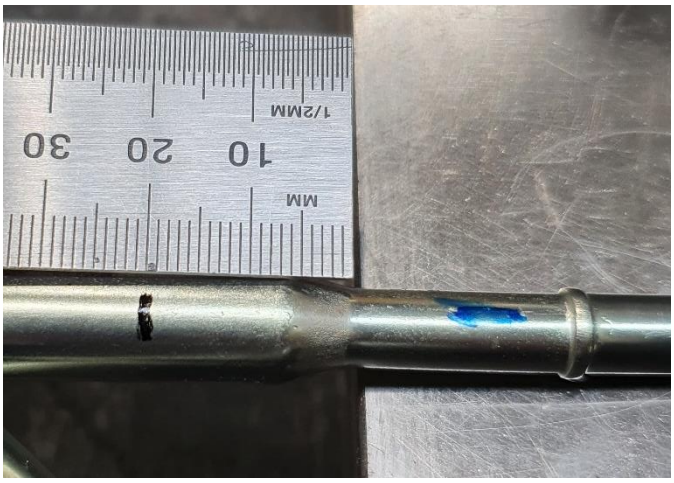


To account for the increased tank volume the fuel pickup tube needs to be lengthened.

PRE MY22

Mark and cut the pickup tube 20mm from the filter mounting plate.

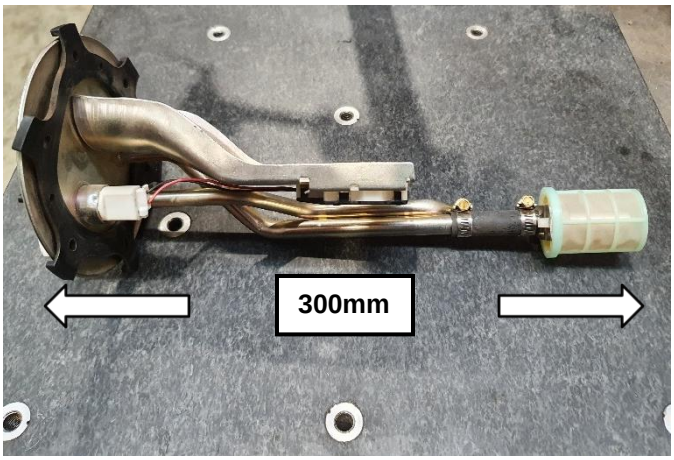
Clean all debris from sender and pickup assembly.



MY22 ON

Mark and cut the pickup tube 20mm from the small to large tube transition.

Clean all debris from sender and pickup assembly.



Install the new 50mm long plastic pickup tube extension over the steel pick up tube sliding it up 15mm and securing in place with one of the 12mm hose clamps supplied.

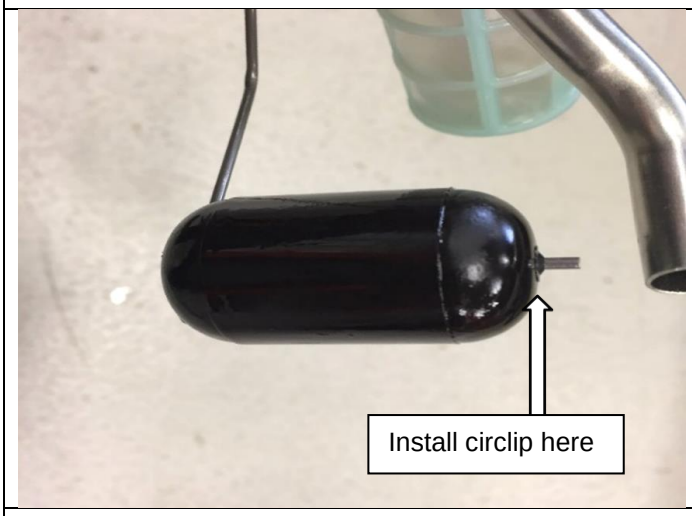
Slide a second 12mm hose clamp onto the plastic pickup tube

Refit the pickup filter to the other section of steel tube and slide into the plastic pick up tube.

Once installed, the height from the underside of the sender top plate to the bottom of the fuel filter should measure 300mm on either version of fuel sender.

Once this length has been achieved, secure the filter tube in place with the second hose clamp.

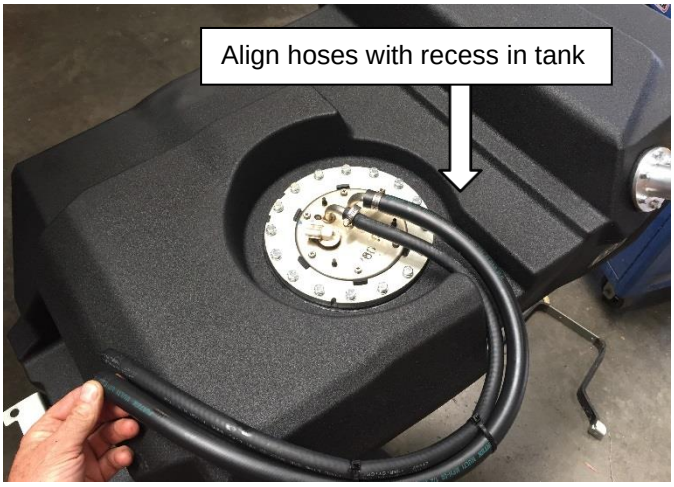
INSTALLATION PROCEDURE



Install the new float arm into the fuel sender.

Install the float retained from the earlier procedure onto the new float arm.

Secure the float using the push on circlip supplied.



Install the fuel sender into the Frontier tank. Align the fuel inlet and outlet tubes as shown. When installing the sender ensure that the float is positioned outside the swirl pot and does not foul on the swirl pot support posts.

Secure the sender using the six M5 x 12mm pan head screws supplied in the kit.

M5 2.1Nm

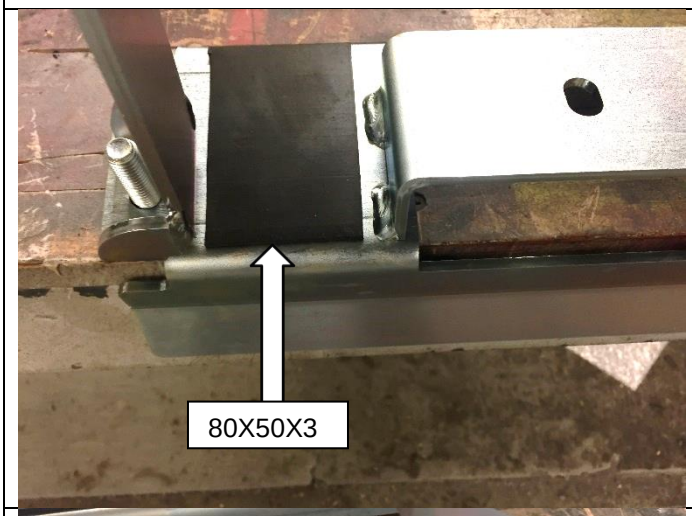
Install the 12mm and 10mm fuel hose supplied in the kit. Secure the hoses with the 10mm hose clamps supplied in the kit.

Remove the white protective backing from the 6mm thick self-adhesive rubber insulator. Install the rubber insulating pad around the two studs in the large mounting bracket.

Remove the white protective backing from the longest section of 3mm thick self-adhesive rubber insulator pad.

Install the insulator pad as shown.

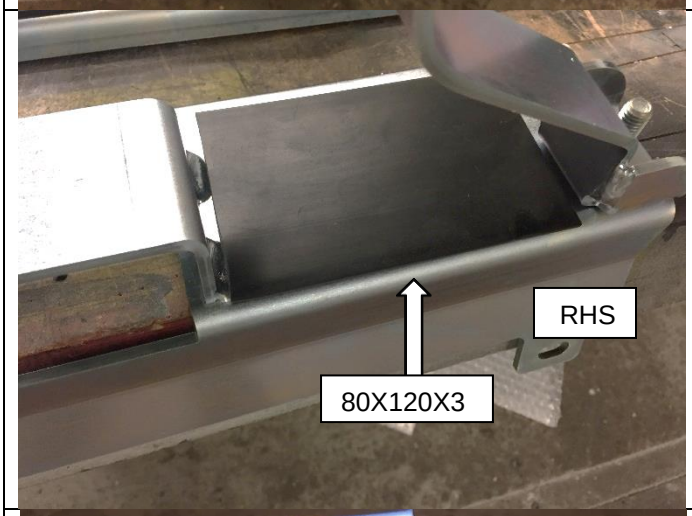
INSTALLATION PROCEDURE



Position the large “U” shaped tank mounting strap over the 2 studs in the rear mounting bracket.

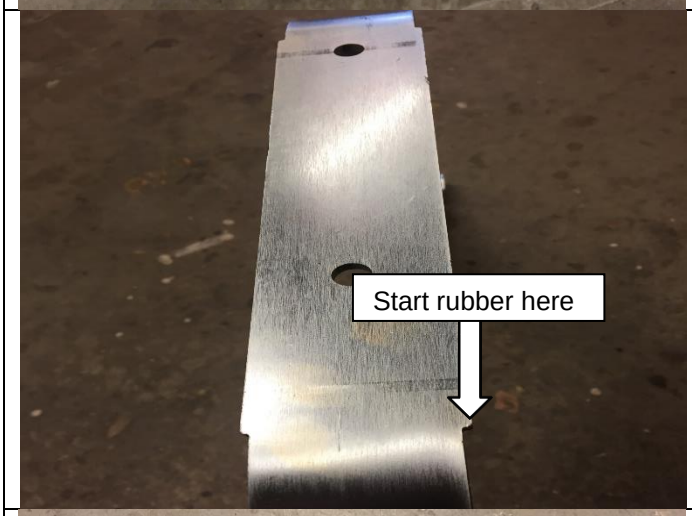
Remove the white protective backing from the 80 x 50 x 3mm rubber insulator pad and attach the pad to the mounting bracket.

Ensure that the pads are not positioned under the mounting strap surface.



Remove the white protective backing from the 80 x 120 x 3mm rubber insulator pad and attach the pad to the mounting bracket.

Ensure that the pads are not positioned under the mounting strap surface.

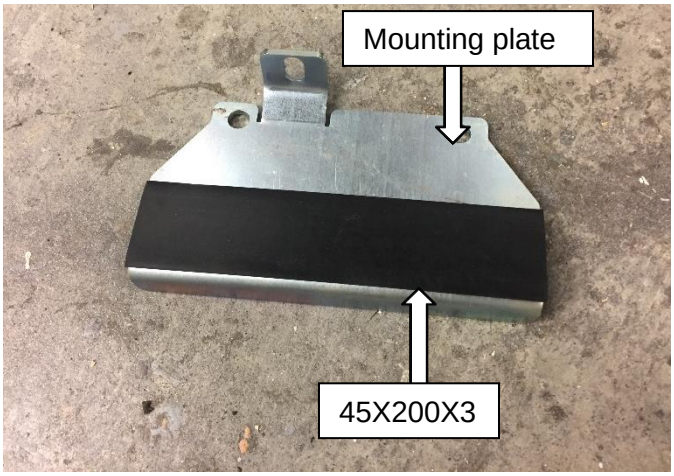


Cut and install the 40mm wide strap rubber supplied in the kit onto the rear mounting strap.

Start the rubber at the notch in the strap and continue up to the gusset on each side.

The strap should have rubber installed as shown.

INSTALLATION PROCEDURE



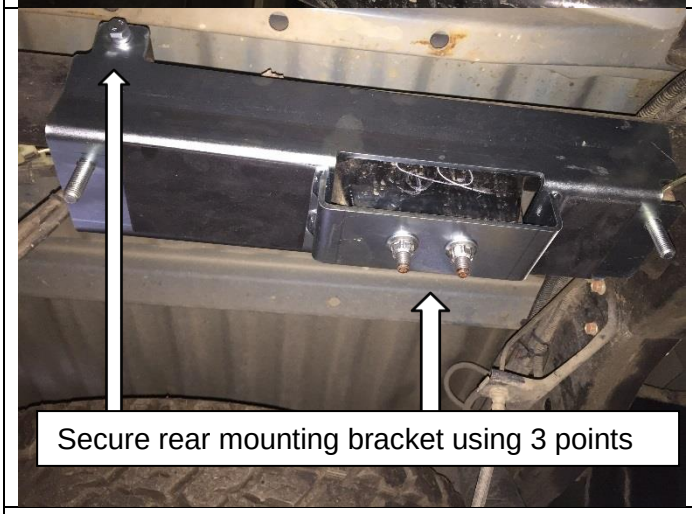
Remove the white protective backing from the 45 x 200 x 3mm rubber insulating pad.

Install the pad in the position shown on the front mounting plate.

Position the front mounting plate over the two studs in the crossmember at the front of the tank.

Secure the mounting plate in place using the M10 x 45mm bolt, nut and washer supplied in the kit.

The bolt is to hold the plate in position during the tank installation, do not torque the bolt at this stage.

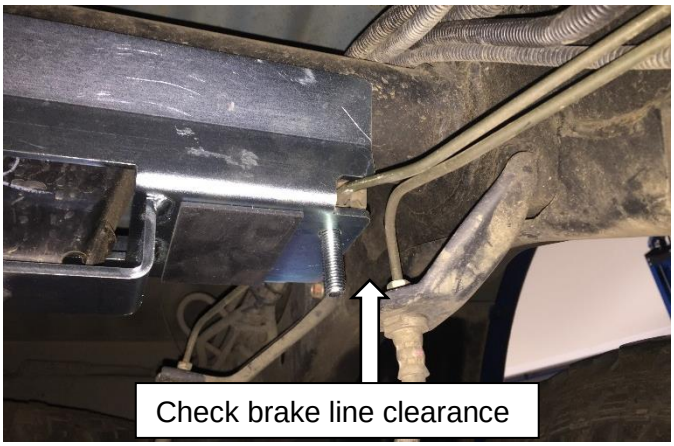


Position the rear mounting bracket over the two studs positioned at the rear of the tank.

Secure the bracket using two nuts retained from the removal process and 1 x M8 x 20 bolt, flat washer and spring washer.

M8 22Nm

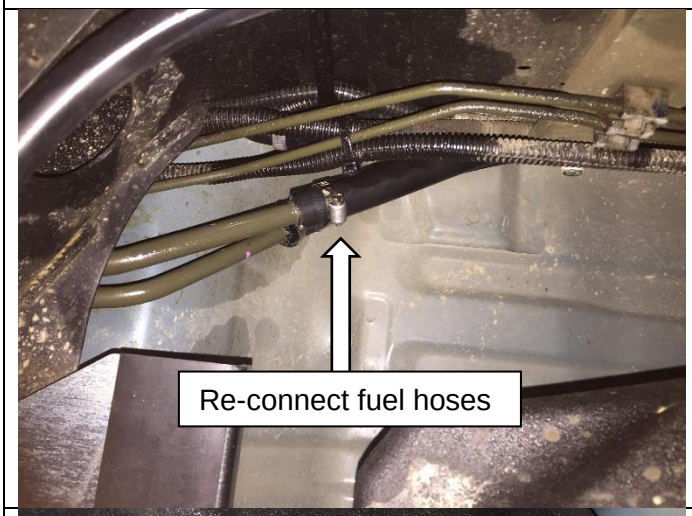
M10 44 Nm



Brake line shapes do vary across the different models.

Ensure clearance to the brake lines and adjust the brake lines if necessary.

INSTALLATION PROCEDURE



Place the frontier tank onto the jack. Tilt the tank whilst raising it into position to clear the exhaust hanger on the chassis above the diff.

Once the tank has cleared the exhaust bracket and sitting flat install the long mounting strap under the tank.

When the tank is almost in position, reconnect the fuel sender wiring.

At this stage it is recommended to reconnect the fuel lines and secure using the clamps supplied in the kit.

Continue to raise tank into position ensuring that the wiring harness is clear of any pinch points.

Continue to raise the tank into position. Position the mounting holes in the front end of the large mounting strap over the two chassis studs located at the front of the tank.

Loosely fit the 2 nuts retained in the removal process.

Position the rear mounting strap under the tank.

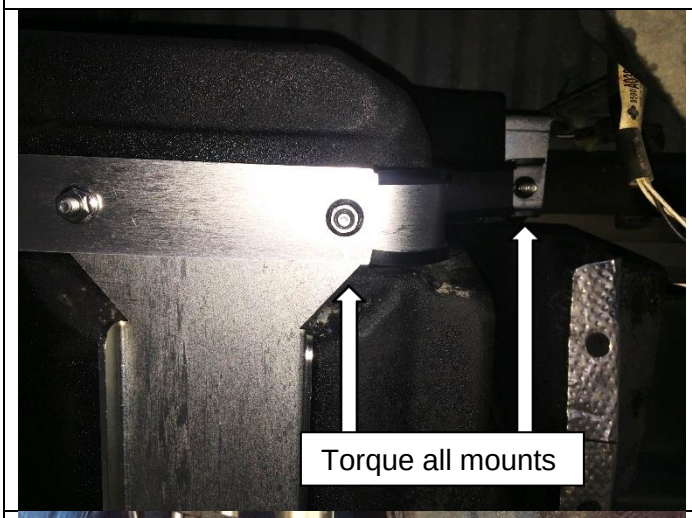
Position the two holes in the bottom of the strap over the two M8 studs on the long mounting bracket.

Loosely fit the two M8 nuts supplied in the kit.

Position the rear mounting strap over the M10 studs in the rear mount bracket attached to the chassis earlier in the procedure.

Loosely fit the M10 nuts supplied in the kit.

INSTALLATION PROCEDURE



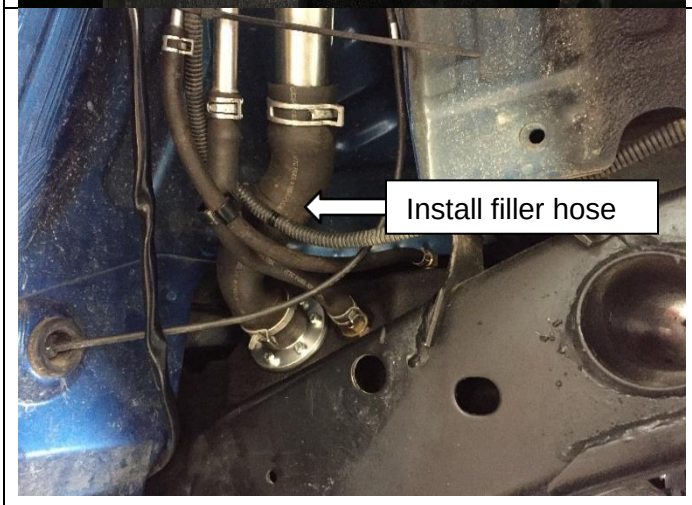
Check position of tank on the long mounting strap ensuring that the strap is correctly located in the channel on the bottom of the tank.

Check clearance of tank to ensure clearance and correct routing of fuel lines and wiring harness.

Tighten 6 x M10 nuts and 2 x M8 nuts.

M8 22Nm

M10 44Nm



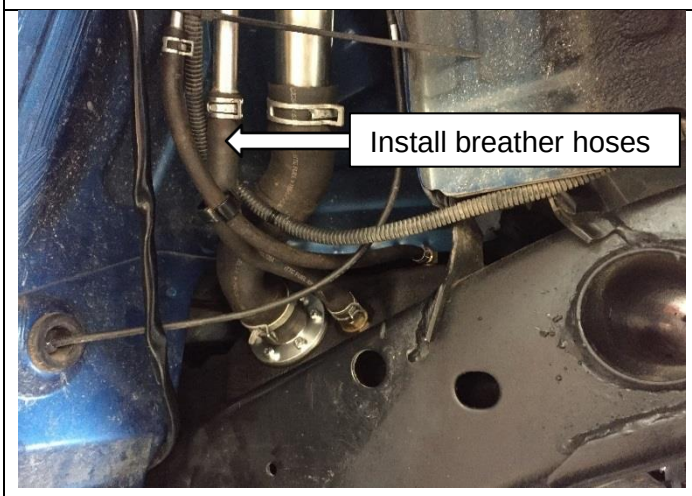
DUAL CAB STYLESIDE MODELS

Shorten 35mm fuel filler hose by 50mm at the steel filler tube end.

TRAY BODY VARIANTS

In some cases, it may be necessary to use the 35mm hose barb and clamps supplied in the kit to cut and reshape the fill hose to achieve adequate fall on the filler neck to ensure fast filling.

Install hose onto vehicle and tank and secure using hose clamps retained in removal procedure.



Shorten 16mm breather hose by 50mm and install into vehicle. Ensure that there is no low spot in the hose that can accumulate fuel. Secure with the clamps retained in the remoaval procedure.

Install the 6mm rollover breather hose between the rollover valve on the tank and the 6mm steel tube attached to the filler neck. Secure with the clamps retained in the removal procedure.

Re-install driveshaft and exhaust system using the original equipment retained in the removal procedure.

Tighten all bolts to the correct torque.

INSTALLATION PROCEDURE

Add fuel to vehicle and run engine to check for leaks. Check fuel sender for correct operation.

Note, it may take several minutes or several cycles of the ignition for the gauge to show a true reading if the new fuel level is less than the previous level. It is possible it will still show the fuel level that was present before removing the original tank. This is normal operation as the fuel gauge is controlled by the vehicle's body control module.

Install Gauge Caution Sticker to drivers side upper corner on the inside of the vehicles windscreen.

FITTED PRODUCT