



Part Number: **TAD112 – TAD112V**  
Product Description: **FRONTIER SERIES POLYMER FUEL TANK 140L**

Suited to vehicle/s: **TOYOTA HILUX 2015-ON DIESEL\***  
**TAD112 - VEHICLES WITHOUT 48V V-ACTIVE TECHNOLOGY**  
**TAD112V - VEHICLES WITH 48V V-ACTIVE TECHNOLOGY**

\* TAD112 & TAD112V do not suit models with AdBlue®

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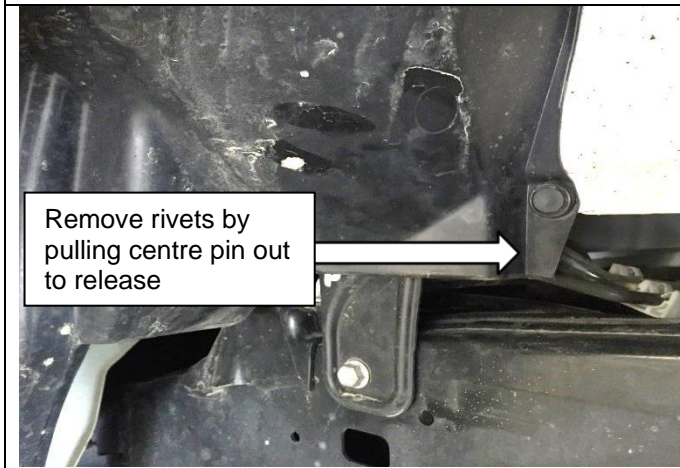
**NOTE: 'WARNING' notes in the fitting procedure relate to OHS situations, where to avoid a potentially hazardous situation it is suggested that protective safety gear be worn or a safe work procedure be employed. If these notes and warnings are not heeded, injury may result.**

### FASTENER TORQUE SETTINGS:

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

<b>PARTS LISTING - TAD112BK</b>			
<b>APPLICATION.</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>
<b>FRONTIER SERIES FUEL TANK INSTALLATION</b>	<b>TAD112</b>	<b>1</b>	<b>POLYMER FUEL TANK</b>
	<b>BP80060</b>	<b>0.3</b>	<b>12MM FUEL HOSE</b>
	<b>BP80053</b>	<b>2</b>	<b>#10 HOSE CLAMPS SUIT 12MM HOSE</b>
	<b>BP80219</b>	<b>1</b>	<b>HOSE BARB RDUCER 8 - 6MM</b>
	<b>BP80057</b>	<b>0.75</b>	<b>FUEL HOSE 1/4"</b>
	<b>BP80059</b>	<b>0.3</b>	<b>FUEL HOSE 5/16"</b>
	<b>BP80102</b>	<b>1</b>	<b>ROLLOVER VENT CAP</b>
	<b>BP80055</b>	<b>4</b>	<b>#4 HOSE CLAMPS SUIT 1/4 " &amp; 8MM HOSE</b>
	<b>BP80253</b>	<b>0.375</b>	<b>15MM FUEL HOSE</b>
	<b>BP80187</b>	<b>1</b>	<b>STRAP KIT HILUX 15 ON</b>
	<b>BP80063</b>	<b>2</b>	<b>P CLIP 16MMP</b>
	<b>BP1005</b>	<b>2</b>	<b>M6 X 16 SETSCREW</b>
	<b>BP1214</b>	<b>2</b>	<b>M6 FLAT WASHER</b>
	<b>BP80160</b>	<b>1</b>	<b>GAUGE CAUTION STICKER</b>
	<b>BP80410</b>	<b>0.6</b>	<b>STRAP RUBBER 50MM</b>
	<b>BP80154</b>	<b>0.75</b>	<b>STRAP RUBBER 40MM</b>
	<b>BP80056</b>	<b>2</b>	<b>#8 HOSE CLAMP SUIT 16mm HOSE</b>
	<b>BP80174</b>	<b>1</b>	<b>INSULATOR RUBBER 80X320MM</b>
	<b>BP80173</b>	<b>1</b>	<b>INSULATOR RUBBER 80X300MM</b>
	<b>BP80240</b>	<b>1</b>	<b>INSULATOR RUBBER 80X250X3MM</b>
	<b>BP80224</b>	<b>1</b>	<b>STICKER BUMPER ARB FRONTIER</b>
	<b>3789523</b>	<b>1</b>	<b>FITTING INSTRUCTIONS TAD112 / TAD112V</b>
<b>48V CABLE RELOCATION - TAD112V ONLY -</b>	<b>BP80852</b>	<b>1</b>	<b>48V CABLE RELOCATION KIT</b> 1 x 37500228: Bracket 1 x 6152008: M6x25 Hex Flange Bolt 1 x 6151995: M6 Flange Nut 1 x 665504: Protective Foam 1 x 180304: 370mm Cable Tie 1 x 6602018: Alcohol Swab

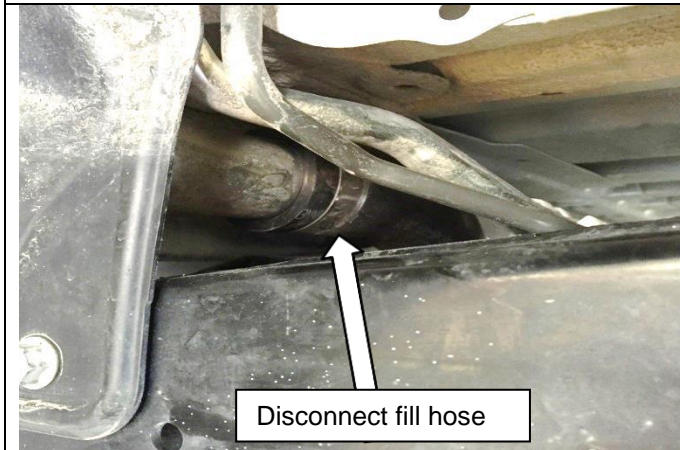
## REMOVAL OF ORIGINAL FUEL TANK



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

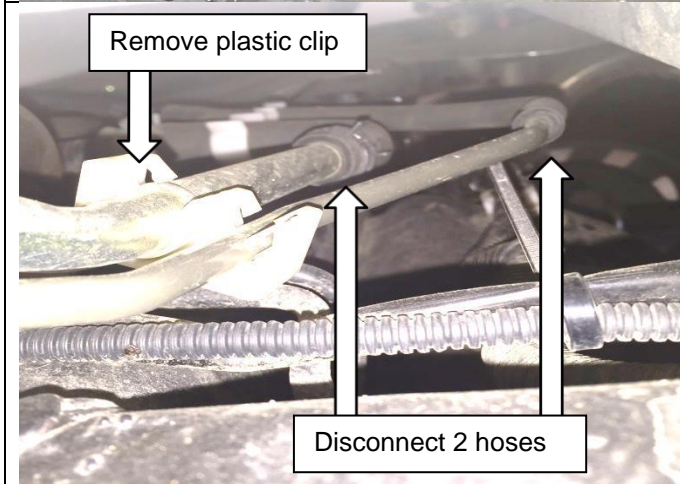
To release the trim clips pull the inner clip part of the way out then pull outer clip.

Then remove the screw bolts securing the mud flap and small splash guard



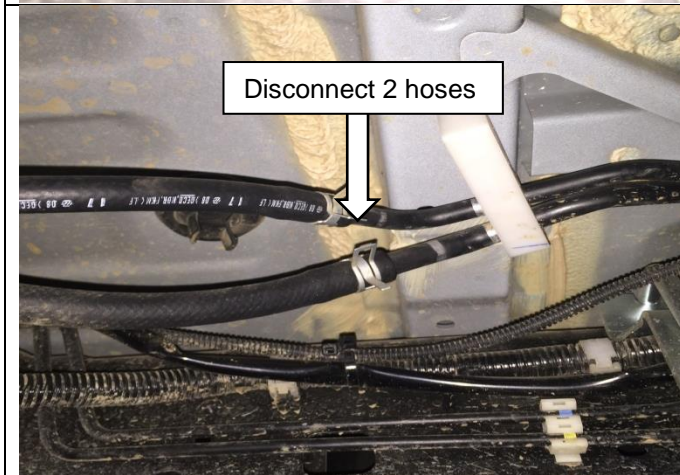
Disconnect the fuel filler hose from the steel filler neck. Retain the hose clamp for the installation process.

**NOTE:** For wide tracked vehicles with the shock absorber on the outside of the chassis rail (eg Rouge & GRSport), access to this hoseclamp may be restricted. A socket extension and universal joint may be required to loosen the hose clamp.



Remove the white plastic clip attached to the filler breather pipes.

Disconnect the breather and rollover vent hoses from the steel pipes.



Disconnect the supply and return hoses from the steel fuel lines at the LHF corner of the fuel tank.

Retain the clamps for the installation procedure.



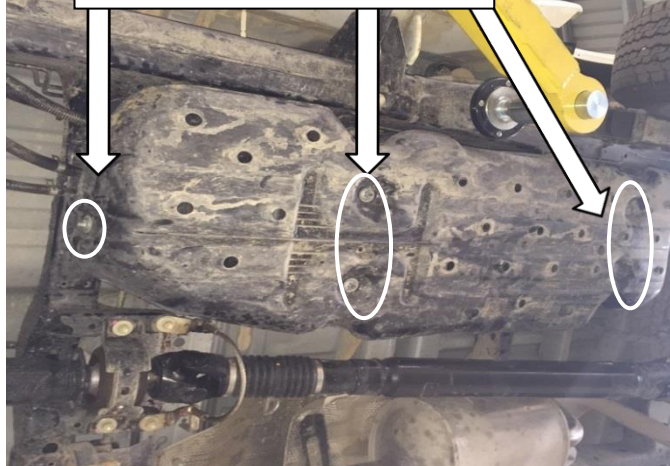
## REMOVAL OF ORIGINAL FUEL TANK

Disconnect wiring harness from fuel tank



Disconnect the wiring harness from the top of the fuel tank behind the rear crossmember.

Remove 5 nuts securing shield



Remove 5 nuts securing tank shield and remove shield.

Remove strap mounting bolts

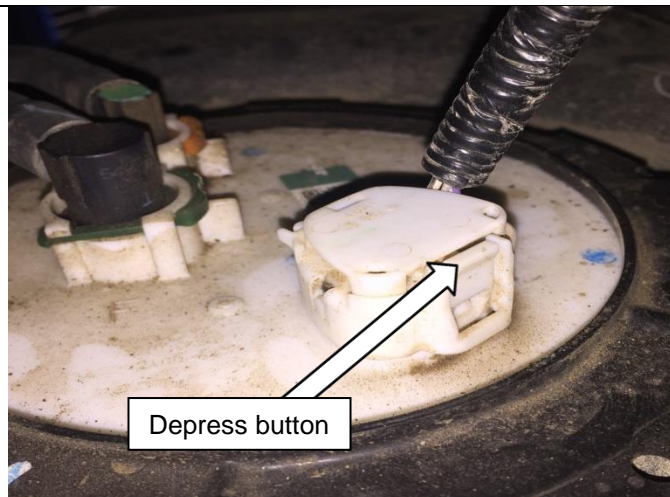


Position a jack underneath the fuel tank.  
Remove 2 bolts securing tank straps to vehicle.  
Retain the bolts for the installation process.



Remove the 2 spring clips from the from the tank strap retaining pins.  
Remove the pins and remove the straps.  
Retain the spring clips and pins for the installation procedure.

## REMOVAL OF ORIGINAL FUEL TANK



Whilst lowering tank disconnect the sender wiring from the top of the tank.

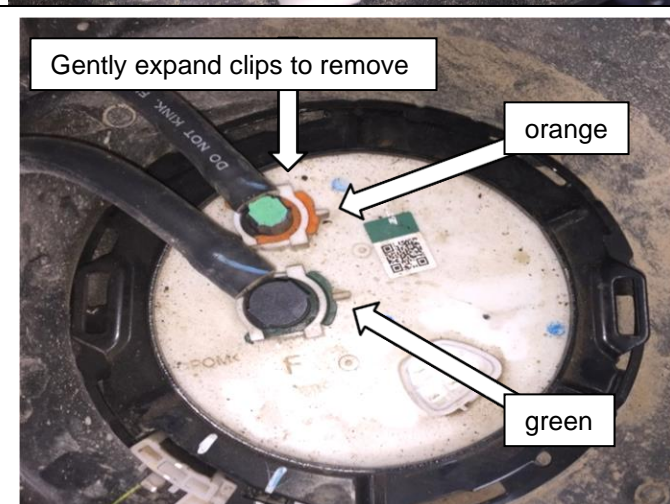
To disconnect the plug press the button in the middle of the plug.



Relocate the fuel sender wiring so that it is positioned above the front fuel tank mounting on the chassis rail.



Remove the white wiring harness retaining clip from the fuel sender retaining ring.



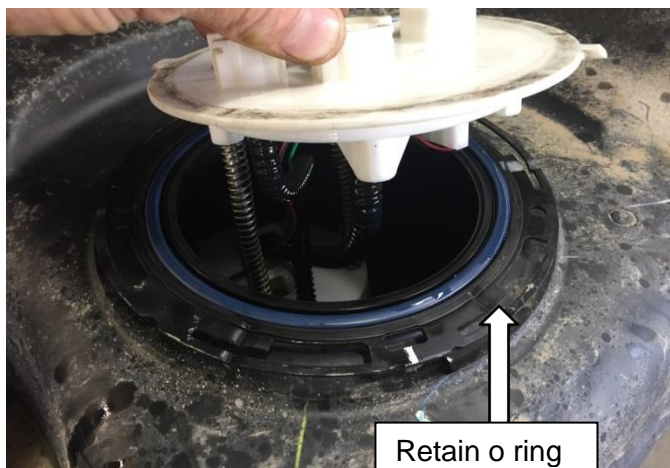
Remove the 2 green and orange fuel line retaining clips from the fuel lines by gently expanding the open end of the horseshoe and sliding out of the groove.

After removing the fuel lines. Remove fuel sender retaining ring by rotating anti-clockwise. This ring can be difficult to remove and may require mechanical assistance. Various tools can be used for this, options include:

- Large pliers or filter wrench
- Sender tool
- Hammer and screwdriver



## REMOVAL OF ORIGINAL FUEL TANK

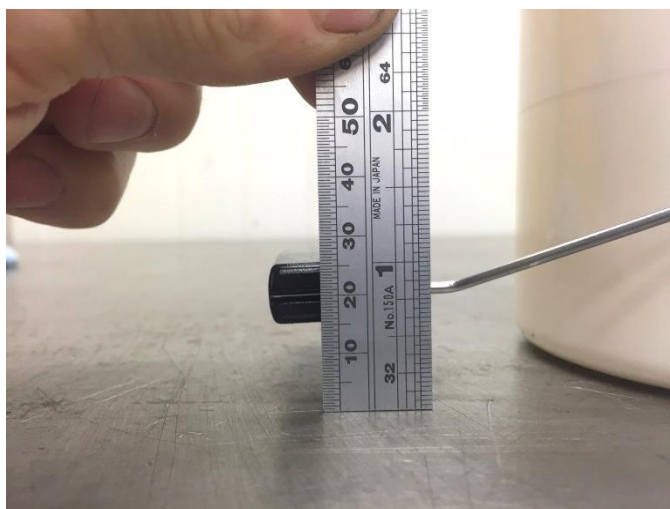


Remove the fuel sender from the tank, retain the sender and the o ring for the installation process.



Remove fill hose from the original fuel tank, retain the hose and clamp for the installation procedure.

## INSTALLATION PROCEDURE



When installing a long range fuel tank to the Hilux it is necessary to modify the fuel sender so that the vehicles fuel gauge will work with the new fuel load.

When removing the fuel sender from the original tank carry out the modification prior to installing it into the new tank.

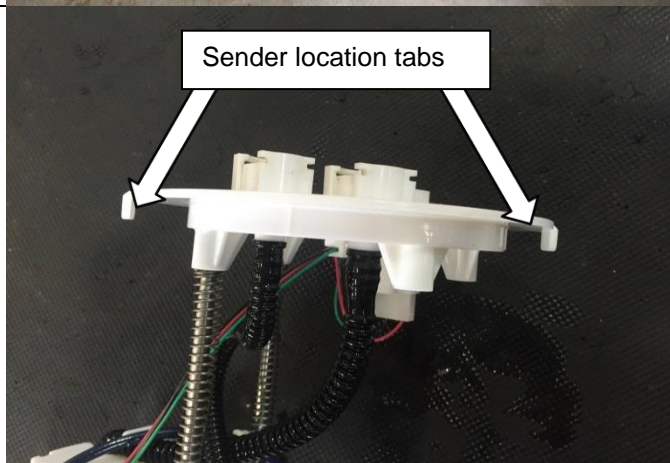
Place the sender upright on a flat level bench with the float arm hanging. Note the bottom edge of the float will be approximately 16mm from the bench top.

# INSTALLATION PROCEDURE

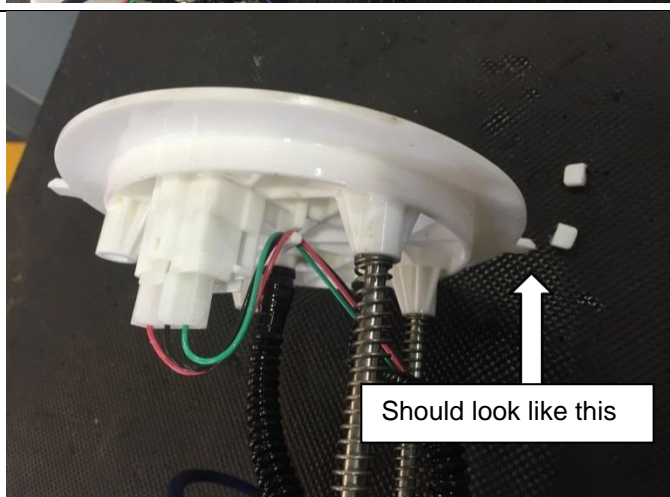


Bend the float arm down so that the bottom edge of the float is level with the bench top.

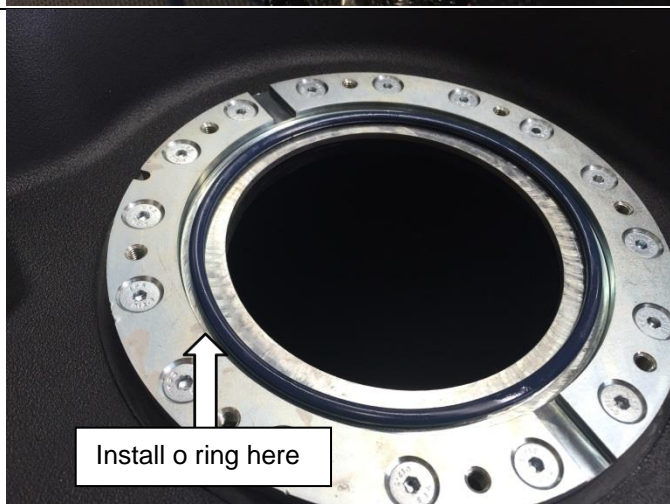
Ensure that the float is level and the sender is at the bottom of its travel.



Identify the 2 location tabs on the fuel sender that will need to be modified.



Using a hacksaw, gently remove only the downward facing portion of the location tabs as shown here. Refer to image on left.



Install the o ring retained in the removal procedure into the groove in the fuel sender sealing flange.

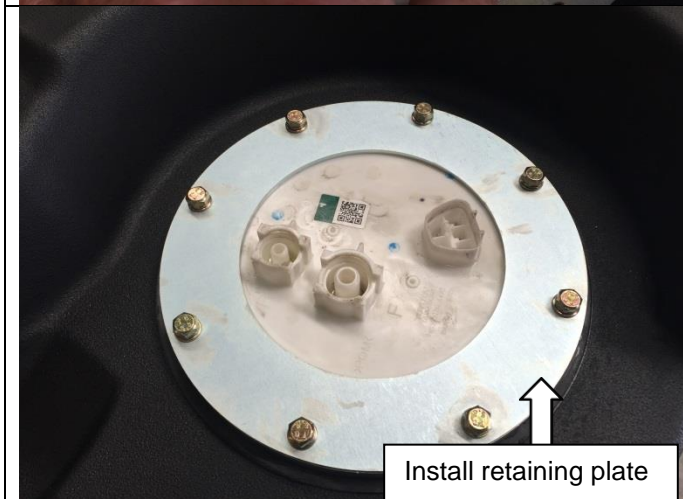
Ensure that the o ring is centralised on the sealing surface.



## INSTALLATION PROCEDURE



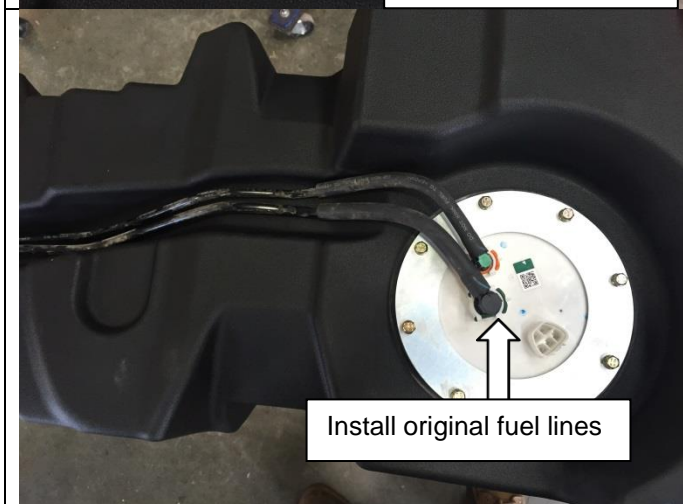
Install the fuel sender into the Frontier tank. Align the tabs on the outer diameter of the fuel sender with the cut outs in the fuel sender flange on the top of the tank.



Once the fuel sender is correctly positioned. Install the fuel sender retaining plate over the top of the sender and secure using the 8 M6 x 12 bolts supplied.



Ensure correct alignment of sender in keyway whilst tightening to prevent damage.



Install the original fuel lines retained from the installation procedure.

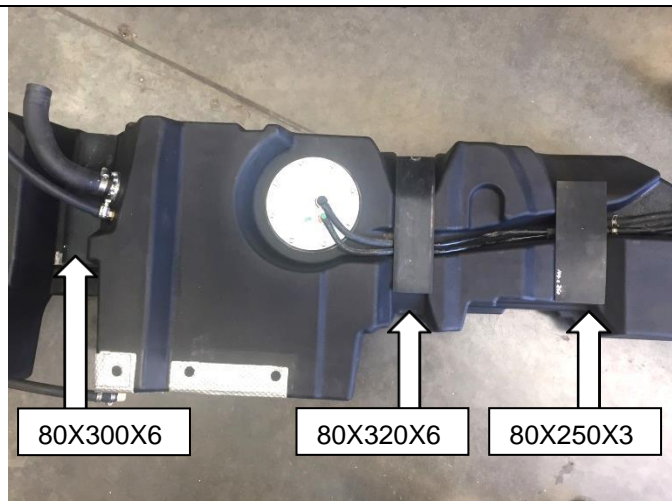
Re-install green and orange retaining clips.



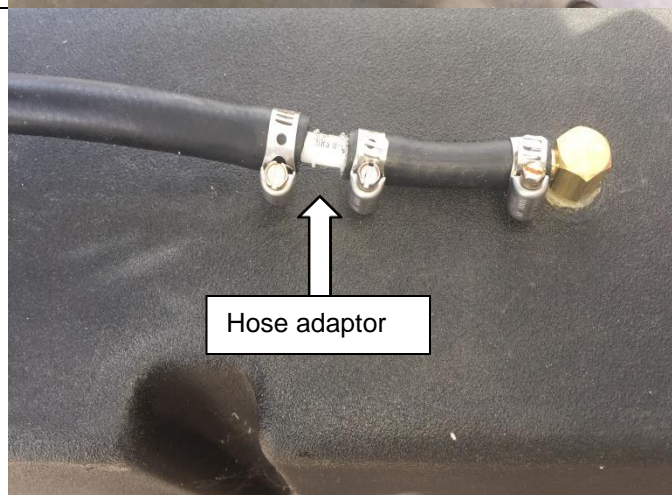
Install the 375mm length of 15mm fuel hose supplied in the kit to the filler breather. Secure using the hose clamp supplied in the kit.

Install the filler hose retained in the removal procedure to the filler neck on the Frontier tank. Secure using the clamp retained in the removal procedure.

## INSTALLATION PROCEDURE



Install the rubber pads to the top of the tank. All 3 pads are different in size, install as per image on left.



### ROLLOVER VALVE - STYLESIDE UTE

Install the 100mm length of  $\frac{1}{4}$  fuel hose to the rollover valve on top of the tank.

Install the 8mm – 6mm hose adaptor to the  $\frac{1}{4}$  fuel hose.

Install the 300mm length of 8mm fuel hose to the hose adaptor.

Secure the hoses with the clamps supplied in the kit.

Skip next 2 steps.



### ROLLOVER VALVE - CAB CHASSIS

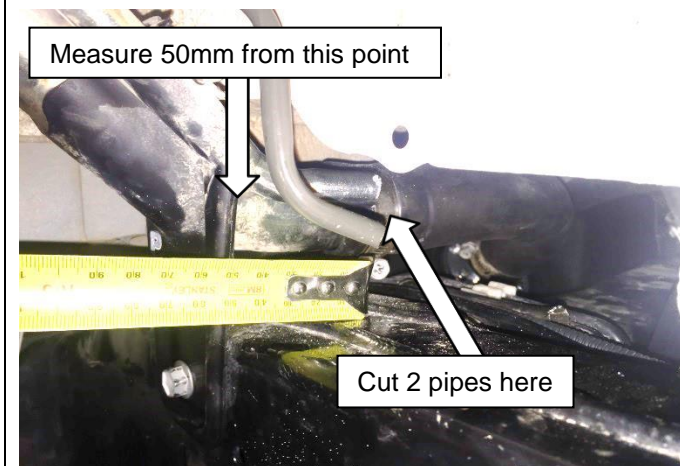
Install the 750mm length of  $\frac{1}{4}$  fuel hose to the rollover valve on top of the tank.



Locate and identify the 2 steel breather pipes that need to be modified.



## INSTALLATION PROCEDURE



Measure 50 mm from the fuel filler mounting bracket and cut the pipes using a hacksaw.  
Remove any burrs using a file or emery paper.

**NOTE:** For wide tracked vehicles with the shock absorber on the outside of the chassis rail, it may be necessary to temporarily remove the filler neck assembly from the vehicle so these pipes can be cut.



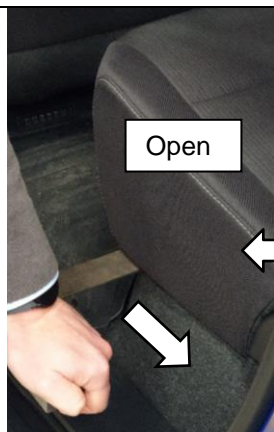
Remove the wiring harness mounting bracket from the top of the rear crossmember.  
Remove the bracket from the wiring harness and discard the bracket.



Loosen the bolt securing the wiring harness mounting bracket on top of the rear differential.  
**Rotate the bracket 90 degrees anti clockwise and tighten the bolt.**



## TAD112V ONLY: 48V CABLE RELOCATION

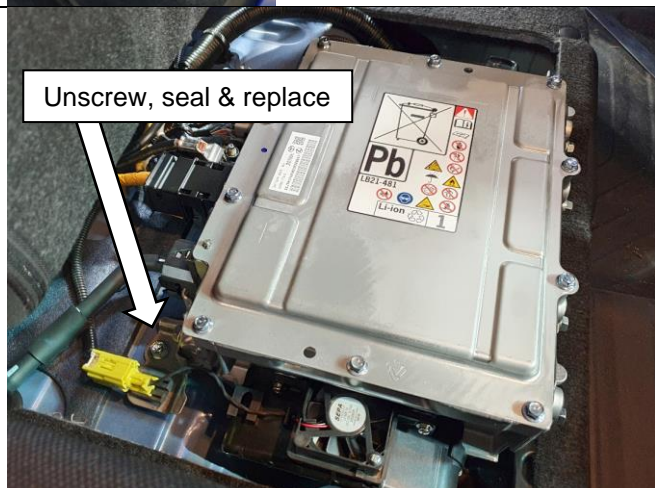


In the back passenger area, lift the base of the left seat to access the 48V battery.

There is no handle to release the seat base.

Use a long flat object to push the hidden hook located under the left side of the left seat base.

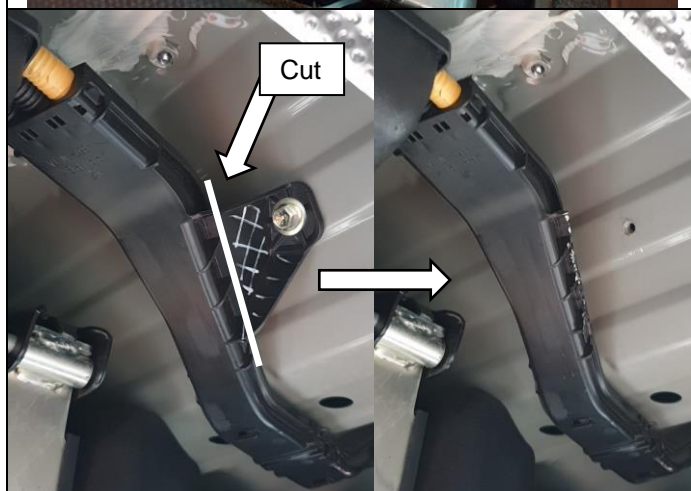
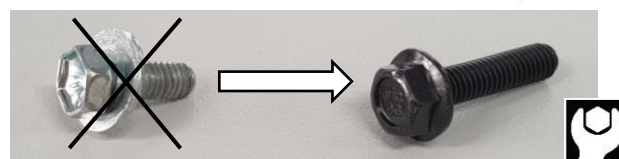
Push it towards the back of the car as shown.



Unscrew the M6 bolt located in the corner of the battery bracket next to the yellow electrical plug.

Replace it with the longer M6x25 flange bolt. Apply sealant to the hole prior to installation.

Tighten to 9Nm / 7lbf.

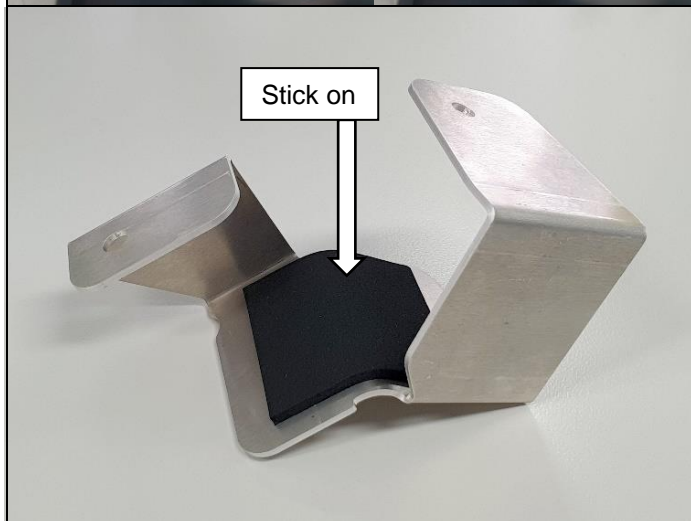


Under the vehicle and below the location of the 48V battery, three 48V cables run towards the engine, incased in a plastic cover.

Cut the 1<sup>st</sup> plastic leg (the closest to the tank) off the cable cover, following the line as shown. Do not cut through the body of the case.

Remove the M6 bolt, keep it for later.

Discard the plastic leg.



Cut the adhesive foam pad in half.

Stick the 1<sup>st</sup> half on the aluminium bracket, centred on the central bend as shown.

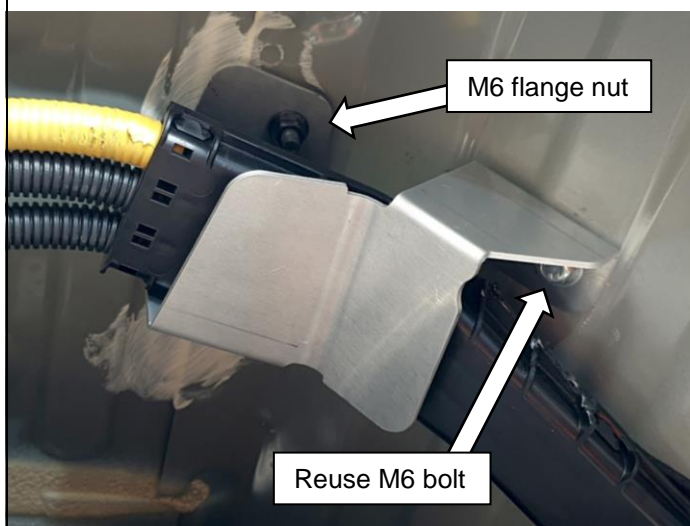


## TAD112V ONLY: 48V CABLE RELOCATION



The 2<sup>nd</sup> half of the foam pad goes between the 48V plastic cover below the previously cut tab and the bottom side of the body.

Clean the area with the provided alcohol wipe and then apply the foam pad.

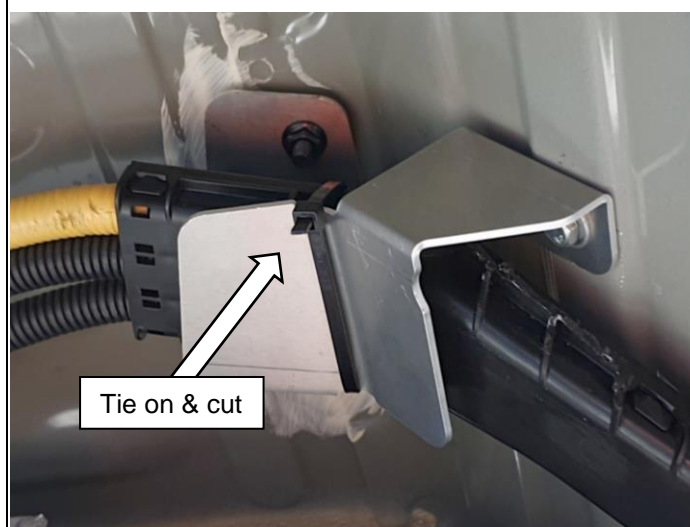


Slide the aluminium bracket around the plastic cable cover

Use 1 x M6 flange nut to fix the top attachment.

Reuse the M6 bolt from the discarded plastic leg to fix the 2nd attachment.

Tighten both fasteners to 9Nm / 7lbf.



Wrap the cable tie around the plastic cable cover and the aluminium bracket along the central bend of the bracket.

Cut the excess tie off.

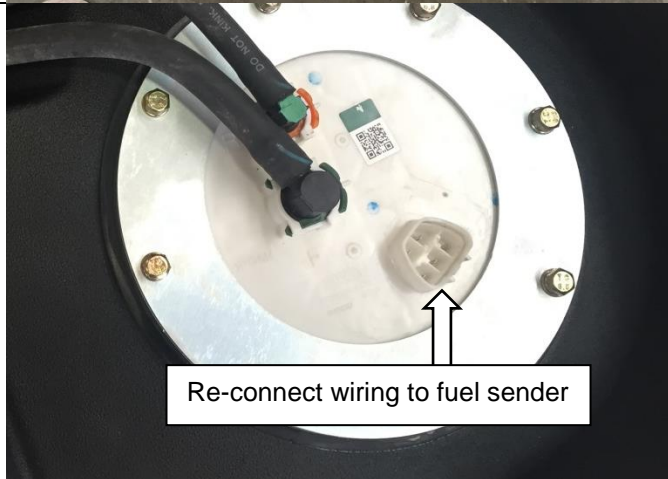




## INSTALLATION PROCEDURE (ALL VEHICLES)



Install the rubber tank strap cover to the inside face of the mounting brackets as shown.



Place the frontier tank onto the jack. Tilt the tank whilst raising it into position to clear the tailshaft. Once the tank has cleared the tailshaft and sitting flat re-connect the wiring to the fuel sender. Continue to raise tank into position ensuring that the wiring harness is clear of any pinch points.



When the tank is in position install the pivot pin and spring retaining clips to eyelet in the strap and the original point in the chassis.



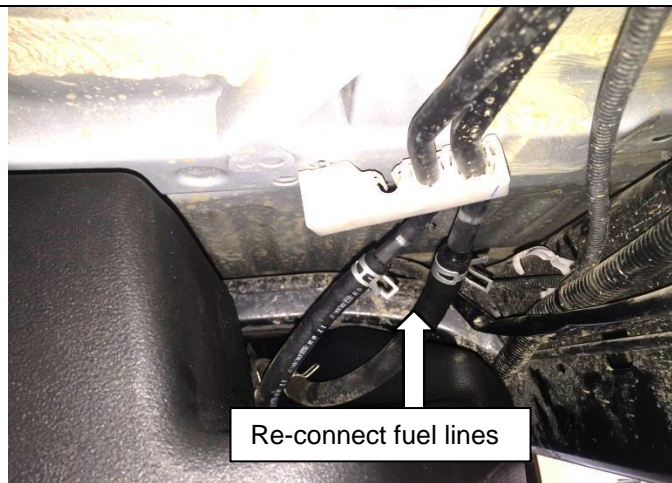
Swing the strap under the tank and secure the other end of the strap to the original mounting point in the chassis. Secure using the bolts retained in the removal procedure.



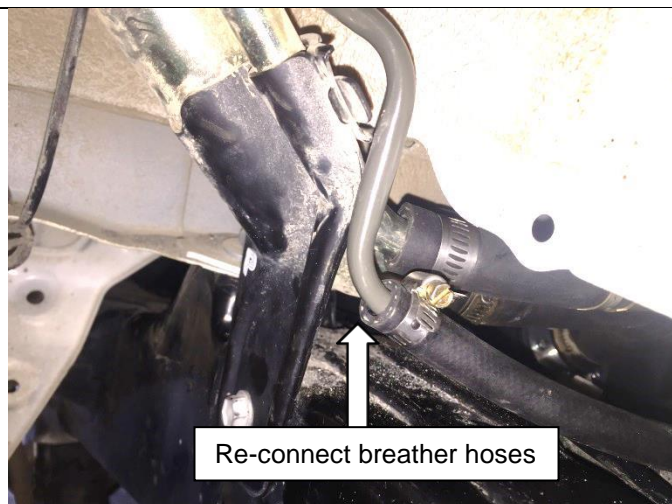
44Nm M10



## INSTALLATION PROCEDURE



Re-connect the supply and return hoses at the LHF corner of the tank. Secure using the original clamps.



### STYLESIDE UTE

Connect the 15mm breather hose and the 8mm rollover vent hose to the steel tubes at the filler neck. Secure using clamps supplied in the kit.



### ROLLOVER VALVE - CAB CHASSIS

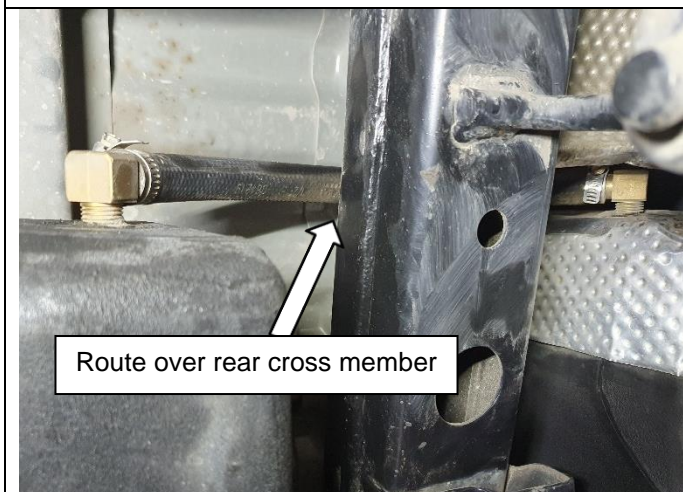
Fit the brass rollover vent cover to the other end of the hose connected to the rollover valve in the tank. Secure each end with clamps supplied in the kit.

Secure the vent to the filler neck with the brass filter facing down.



Attach wiring harness to the 2 M6 threads on the rear face of the Frontier tank. Secure using 2 x P clips and 2 x M6 x 16 bolts and flat washers.

## INSTALLATION PROCEDURE



Route the 5/16" fuel hose over the rear chassis cross member to connect the 2x brass elbows to one another. Secure in place with supplied hose clamps.



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 RH upper side on the inside of the vehicles windscreen.

## FITTED PRODUCT

