



## Installation Instructions for FRRR Ford Ranger Raptor 145L Main Tank Replacement

1. Disconnect the fuel pick-up and return lines near the transfer case. Disconnect the fill hose and roll over valve. Remove Tailshaft, mark position for later installation. Unbolt the straps and lower tank slightly down. Disconnect the sender and fast fill tube. Remove the tank.
2. Trim fuel line bracket LH front (**Refer Pic 1**). Remove clips from front of the wheel arch cover to gain access to the filler neck, remove the fast fill tube from the vehicle. Cut to length (**Refer Pic 2 A & B**) and add 12mm reducing tee, secure with 3/8 EFI clamp. Fit 370mm length of 1/2 rubber to the other side of the Tee. Sit pump assembly on a 5mm spacer and bend float down until it touches the bottom (**Refer Pic 3**). Fit magnet to the tank near entry point of swirl pot. Fit the pump assembly to the tank using B5357 O-Ring and secure with M5 x 8 cap screws and hold down ring. Fit the grommet and roll over valve with sleeve, connect 700mm of 8mm hose to the valve using 1/4 clamp. Screw 1/2" elbow in rear section of the tank point forward and slightly up. Also screw 1/2" straight into main section.
3. Fit FLVV to the tank using B337 O-ring and secure with 6 M5 x 10 pan head screws and washers. Point 1/2" barb towards L/H side. Carefully trim barbs from OE pick-up and return lines and replace with 1300mm of EFI hose, cover with 16mm Conduflex. Fit ICV to tank filler neck.
4. Jack tank into position, feed pick-up and return lines over the crossmember. Secure lines with P clips at the front of the tank, connect sender unit. Jack into position. Secure tank with 3 original bolts with Loctite. Fit new inboard front mount, secure with cup washer rubber, heavy duty flat washer and Nyloc nuts. (**Refer Pic 4**) Connect balance line with 220mm of 1/2" rubber (**Refer Pic 5**). Use Packers if req.
5. Connect pick-up and return lines near the transfer case. Cut 90mm from tank end of the rubber fill hose and 40mm from the filler end. Refit fast fill hose with tee roughly into position, connect 8mm hose from roll over valve to tee. Reclip tube onto the neck and connect 1/2 hose to the FLVV cover with Conduflex. Secure all lines with cable ties. Fill with fuel and check for leaks.
6. Secure all lines with cable ties. Fill with fuel and check for leaks.

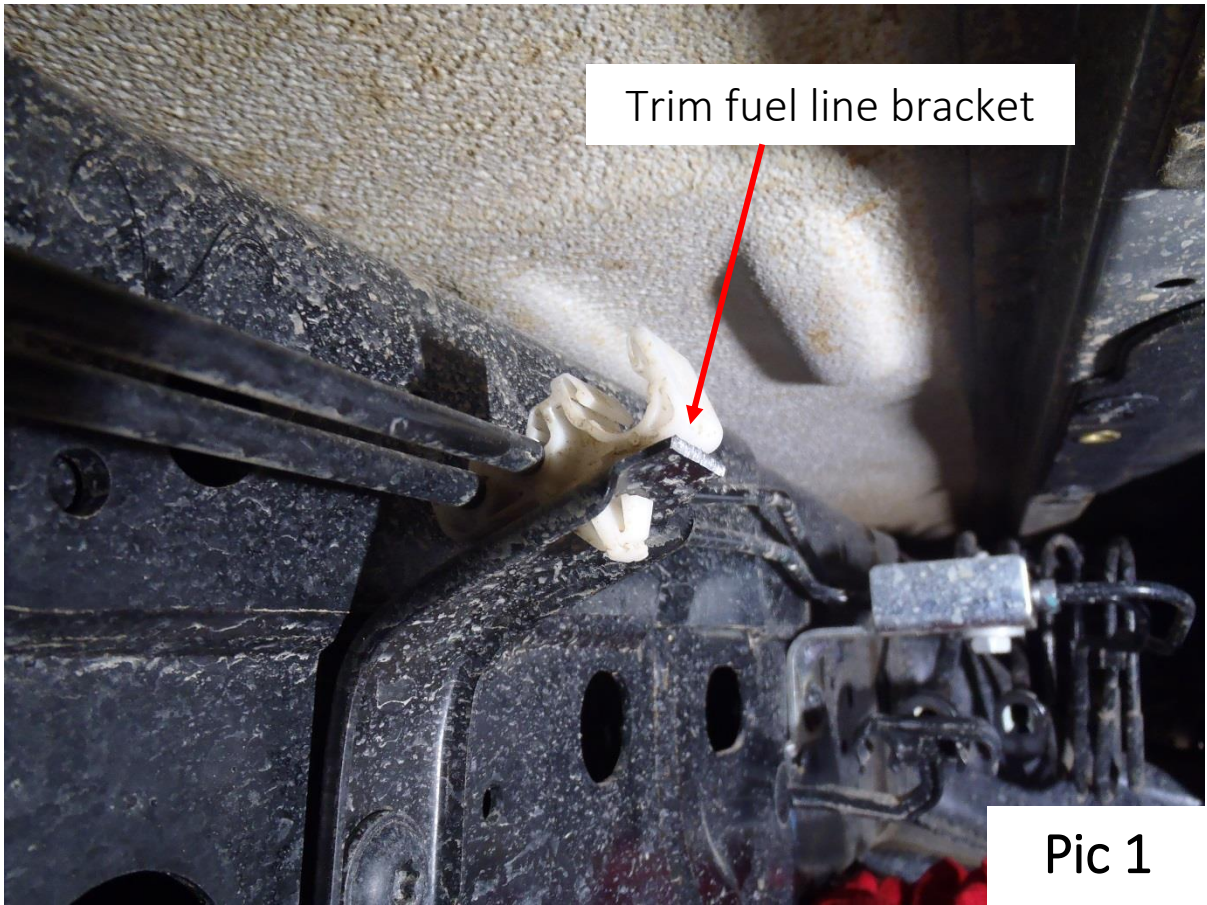


## FITTING KIT CONTENTS FRRR

Updated 9/23 - TL	
<b>Brass:</b>	<b>Electrical:</b>
<ul style="list-style-type: none"> <li>○ 1 x P3 1/2 x 1/4 Straight</li> <li>○ 1 x P6 1/2 x 1/4 Elbow</li> <li>○ 1 x TRS 12 x 12 x 8 Reducing T</li> </ul>	
<b>Bolts / Nuts:</b>	<b>Misc Parts:</b>
<ul style="list-style-type: none"> <li>○ 1 x M6 x 20mm Washer</li> <li>○ 1 x M10 x 27mm HD Washer</li> <li>○ 1 x M10 Nyloc Nut</li> <li>○ 1 x M6 Nyloc Nut</li> <li>○ 6 x M5 x 8mm Cap Screws</li> <li>○ 6 x M5 x 12mm Pan Head</li> <li>○ 12 x M5 Spring Washers</li> <li>○ 1 x M10 Cup Washer</li> </ul>	<ul style="list-style-type: none"> <li>○ 1 x Cup Washer Rubber</li> <li>○ 1 x FRRR Hold Down Ring</li> <li>○ 1 x FLV 60-12 Valve</li> <li>○ 1 x 16mm Conduflex @ 600mm</li> <li>○ 2 x 16mm Conduflex @ 1200mm</li> <li>○ 1 x 20mm Conduflex @ 270mm</li> <li>○ 1 x MR135439 ICV with Flaps reversed</li> <li>○ 1 x FV11 Roll Over Valve with 8mm Sleeve</li> <li>○ 1 x LRA-FTG2 Roll Over Valve Grommet</li> <li>○ 1 x BS357 O/Ring</li> <li>○ 1 x BS337 O/Ring</li> <li>○ 1 x Mount Plate with M10 x 50 Bolt welded</li> <li>○ 2 x 2mm Tank Spacers</li> <li>○ 2 x 3mm Tank Spacers</li> </ul>
<b>Hose Clamps:</b>	<b>Hose:</b>
<ul style="list-style-type: none"> <li>○ 2 x 1/4" Hose Clamps</li> <li>○ 4 x 1/2" Hose Clamps</li> <li>○ 2 x EFI Hose Clamps</li> <li>○ 3 x 3/8" EFI Clamps</li> <li>○ 2 x 25mm P Clips</li> </ul>	<ul style="list-style-type: none"> <li>○ 1 x 8mm Fuel Hose @ 700mm</li> <li>○ 1 x 8mm EFI Hose @ 1250mm</li> <li>○ 1 x 10mm EFI Hose @ 1230mm</li> <li>○ 1 x 12mm Fuel Hose @ 370mm</li> <li>○ 1 x 12mm Fuel Hose @ 220mm</li> </ul>
<b>Pumps &amp; Filters:</b>	<b>Cable Ties:</b>
	<ul style="list-style-type: none"> <li>○ 5 x 7" Cable Ties</li> <li>○ 2 x 11" Cable Ties</li> </ul>
<b>Sender:</b>	<b>6 Pages of Fitting Instructions Consisting of:</b>
	<ul style="list-style-type: none"> <li>○ 1 x Page Fitting instructions</li> <li>○ 1 x Page Fitting Kit Contents</li> <li>○ 4 Pages Reference Pictures</li> </ul>

Kit Packed By \_\_\_\_\_

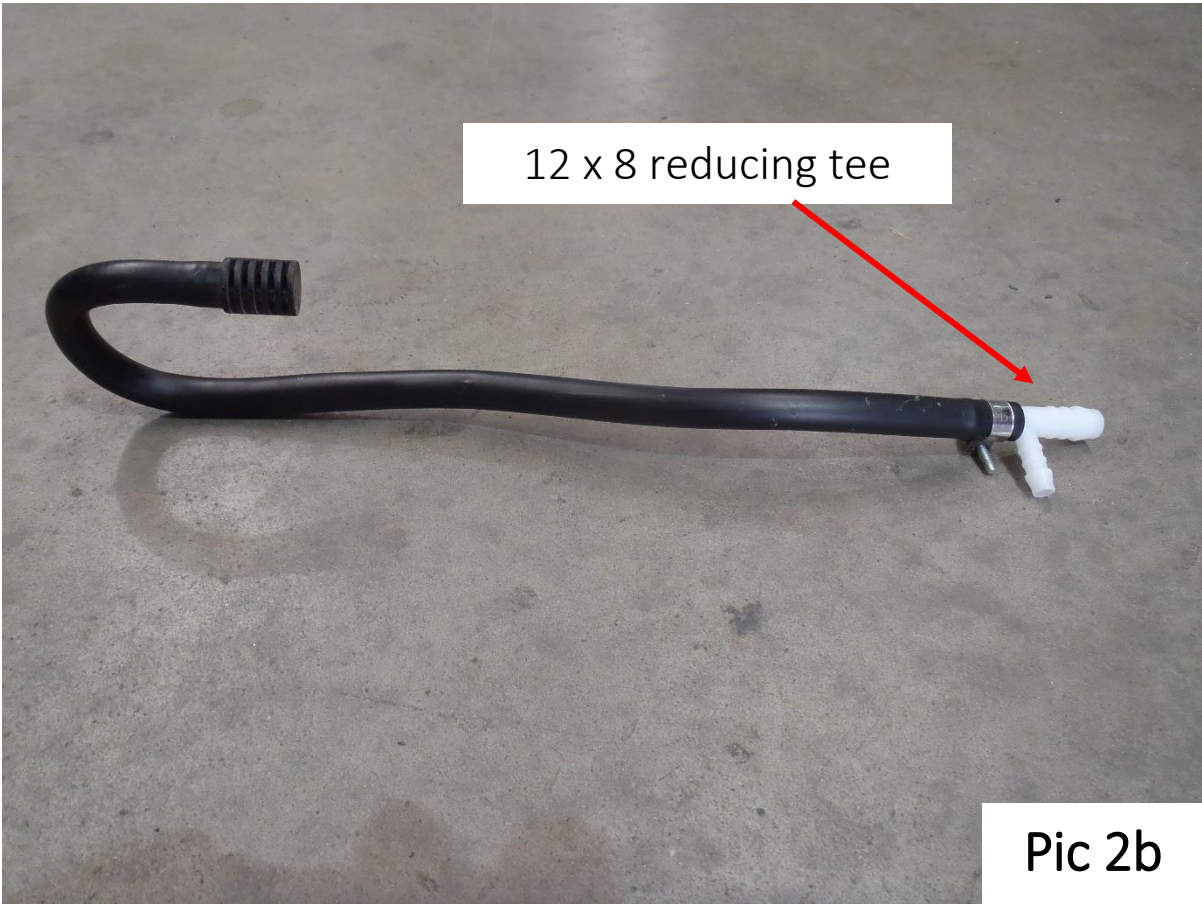
Checked By \_\_\_\_\_

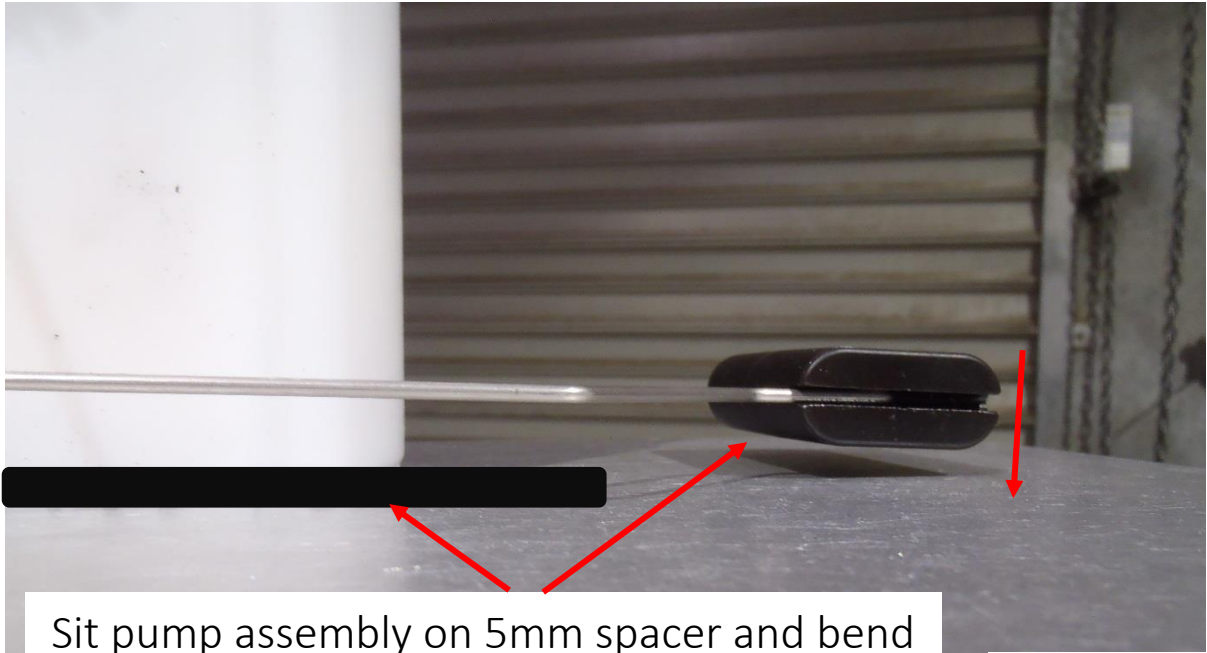


Trim fuel line bracket

Pic 1

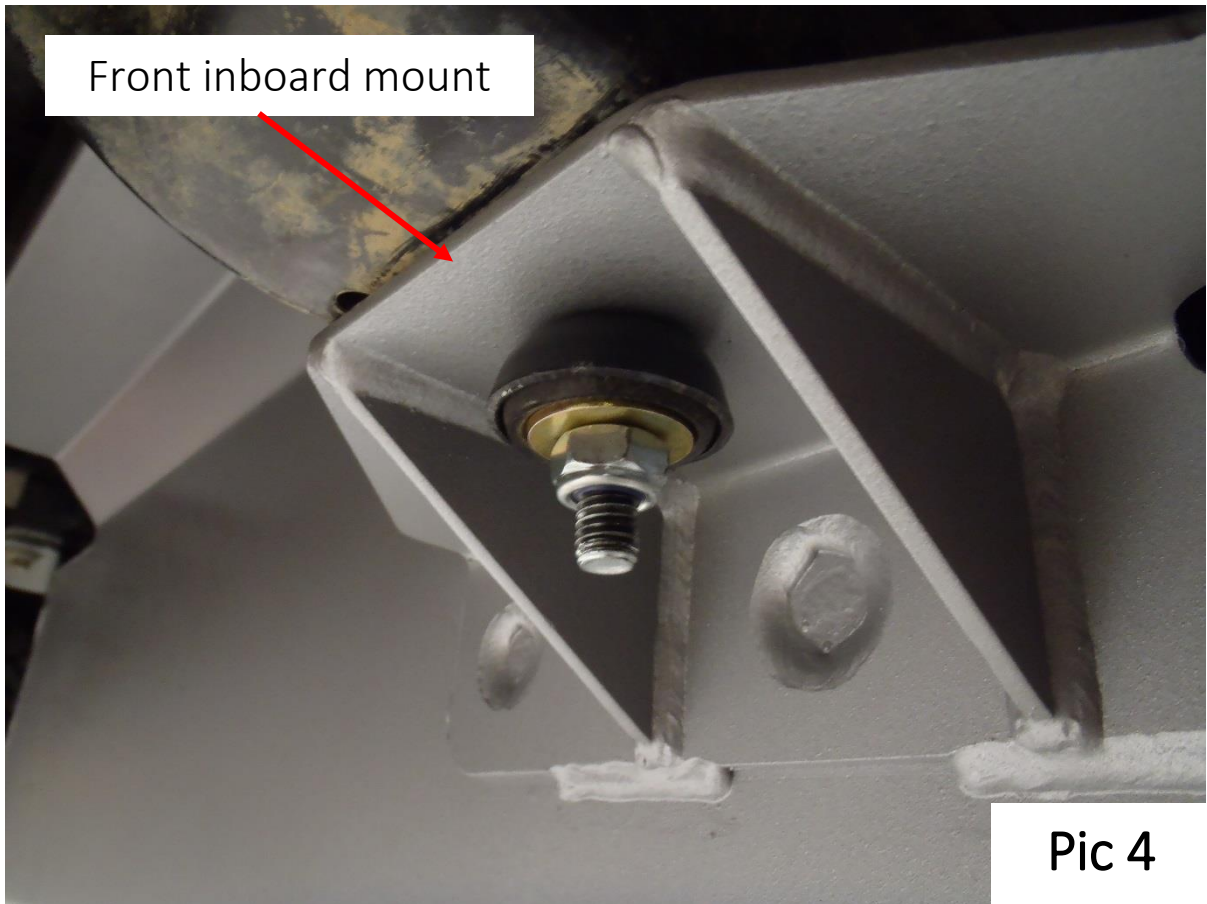






Sit pump assembly on 5mm spacer and bend  
Float arm till float touches base

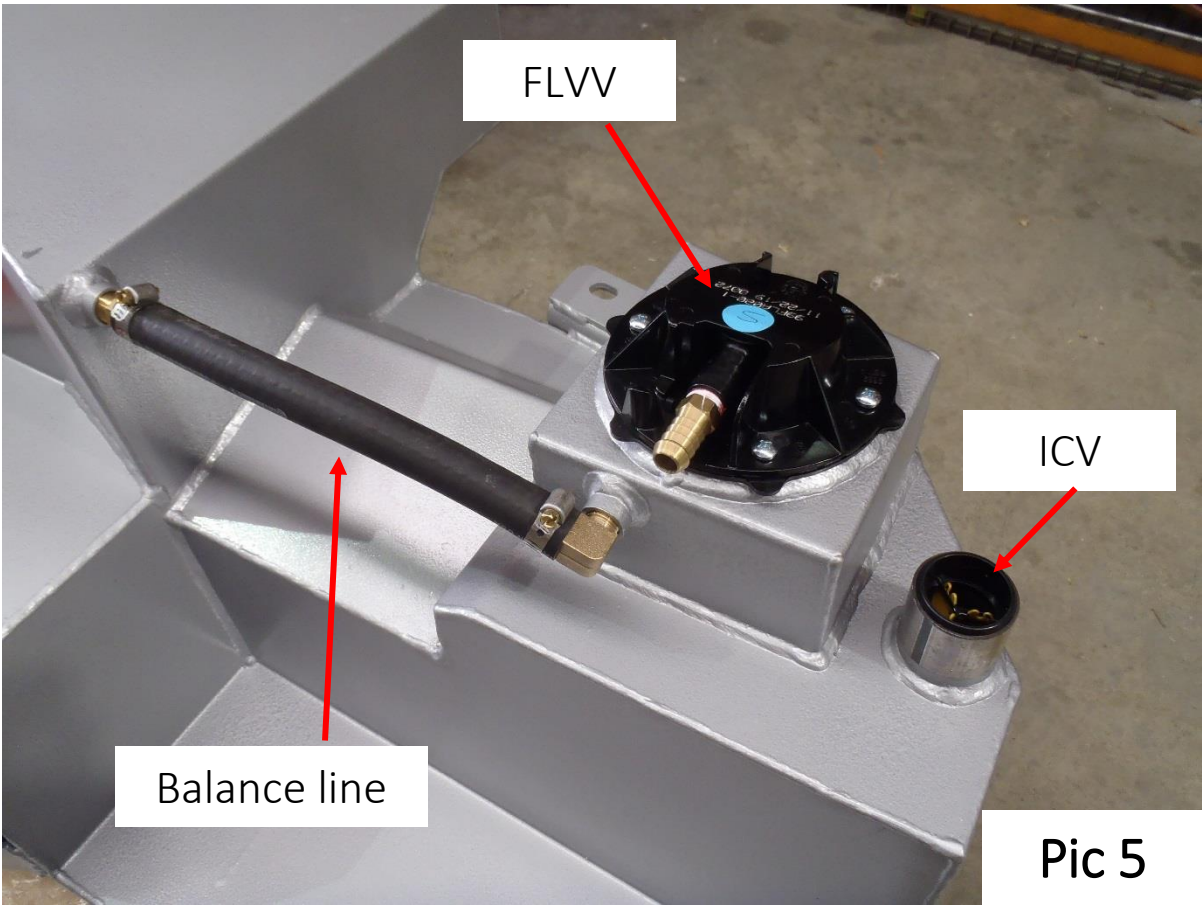
Pic 3



Front inboard mount

Pic 4





Pic 5