

Brown Davis Automotive Pty. Ltd.
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FORD RANGER 2011-PRESENT - ALL MODELS – 145lt REPLACEMENT TANK LONG RANGE FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS PART NUMBER: FRPXR2

Item #	Description	Quantity	Part No.	P	C
1	TANK – REPLACEMENT	1	FRPXR2	-	-
2	DRAIN PLUG- MAGNETIC – M14 (fitted to tank)	1	DP-M14	-	-
3	HOSE – HORIZON – 6mm	500mm			
4	HOSE – HORIZON – 12.5mm	270mm			
5	HOSE – FUEL EMISSION– 8mm	900mm			
6	HOSE CLAMP – STAINLESS – 8-16mm	2			
7	HOSE CLAMP – STAINLESS – 12-22mm	3			
8	HOSE CLAMP – STAINLESS – 32-50mm	1			
9	BRASS – ELBOW - ½" × ¼" BSP	2			
10	BRASS – ELBOW – 5/8" × 3/8" BSP	1			
11	DISCRIMNATOR VALVE	1			
12	DISCRIMNATOR VALVE SEAL	1			
13	CUSHION CLAMP- 12mm	2			
14	CUSHION CLAMP- 18mm	2			
15	SET SCREW – PAN HEAD – M5 x 10mm – PLATED 8.8	8			
16	WASHER – SPRING PLATED – M5	8			
17	WASHER – FLAT PLATED – M6	4			
18	NUT – NYLOC PLATED – M6	4			
19	SET SCREW – HEX – M8 x 20mm – PLATED 8.8	2			
20	WASHER – SPRING PLATED – M8	1			
21	WASHER – FLAT PLATED – M8	3			
22	NUT – NYLOC PLATED – M8	1			
23	SET SCREW – HEX – M10 x 20mm – PLATED 8.8	3			
24	SET SCREW – HEX – M10 x 30mm – PLATED 8.8	1			
25	BOLT – HEX – M10 x 45mm – PLATED 8.8	1			
26	WASHER – SHAKEPROOF PLATED – M10	4			
27	WASHER – FLAT PLATED – M10	4			
28	WASHER – PANEL PLATED – M10	7			
29	NUT – STANDARD PLATED – M10	6			
30	NUT – NYLOC PLATED – M10	3			
31	SET SCREW – HEX – M10 x 30mm – ON WIRE	2			
32	RETAINING RING	1	RR-80		

KIT CONTINUES ON NEXT PAGE

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**FORD RANGER 2011-PRESENT - ALL MODELS – 145lt REPLACEMENT TANK
 LONG RANGE FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS
 PART NUMBER: FRPXR2**

33	TANK BRACKET- WITH WELD ON M10X30MM BOLT	1	TB-FRPX2-1		
34	TANK BRACKET- WITH WELD ON M10 CAPTIVE	1	TB-FRPX2-2		
35	BROWN DAVIS AUTOMOTIVE STICKER	1			
36	OPPERATIONS AND WARRANTY BOOKLET	1			



TB-FRPXR2- REFER TO ITEM 33



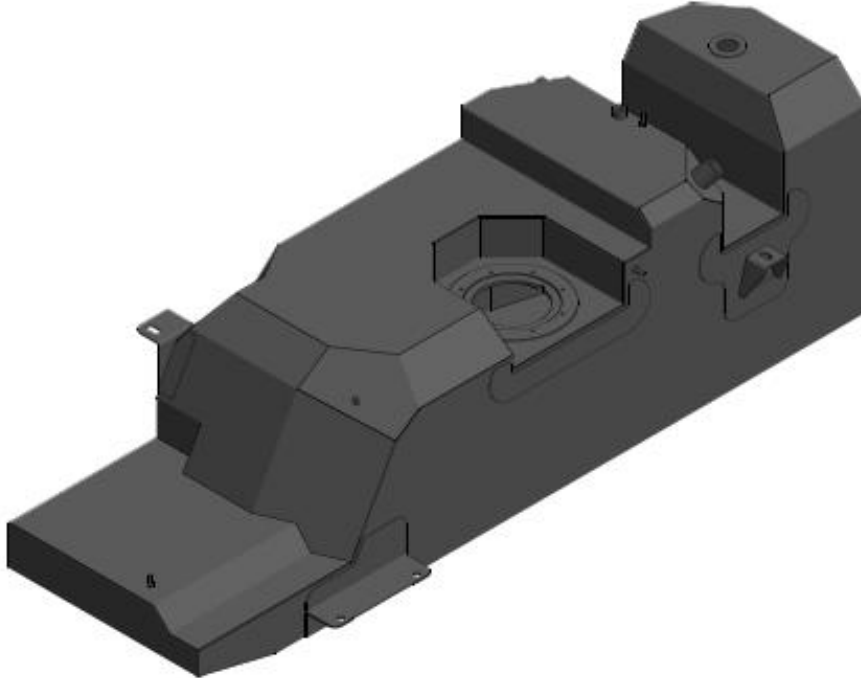
TB-FRPXR2- REFER TO ITEM 34

	STAFF MEMBERS INITIALS	DATE
KIT PACKED BY		
KIT CHECKED BY		

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**FRPXR2 – 145lt REPLACEMENT TANK
LONG RANGE FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS
PART NUMBER: FRPXR2**



WARNING:

THIS FUEL TANK IS HEAVY. DO NOT ATTEMPT TO LIFT THIS FUEL TANK WITHOUT APPROPRIATE ASSISTANCE OR SERIOUS INJURY MAY RESULT



WARNING:

ENSURE A FIRE EXTINGUISHER IS AVAILABLE WHILST WORKING NEAR EXPOSED FUEL



-CHECK CONTENTS OF KIT BEFORE COMMENCING FITMENT

-DRAIN VEHICLE FUEL TANK TO LOWEST LEVEL POSSIBLE BEFORE COMMENCING FITMENT

-BEFORE INSTALLATION THE BROWN DAVIS LONG RANGE TANK SHOULD BE WASHED OUT WITH THE SAME FUEL TYPE AS THE VEHICLE IT'S BEING FITTED TO

Any questions or information required in relation to the below instructions please do not hesitate to contact Brown Davis head office or one of our distributors.

Phone: +61 (3) 9762 8722

Email: info@browndavis.com.au

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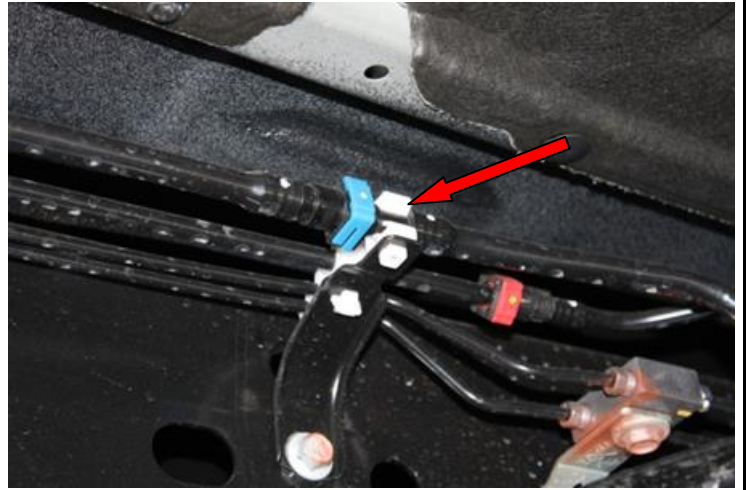
47 Holloway Drive, Bayswater, Victoria, Australia 3153

Ph: +61 (3) 9762 8722 | Fax: +61 (3) 9762 9829 | Email: info@browndavis.com.au | Web: www.browndavis.com.au

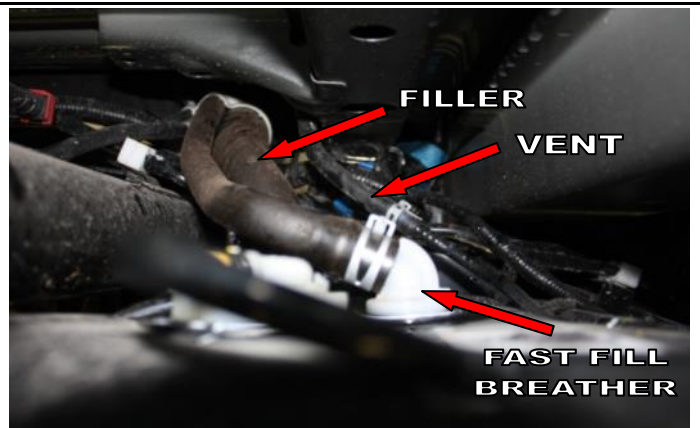
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1. Remove the standard tank guard, and the fuel pick up line (blue) from the front of the tank.



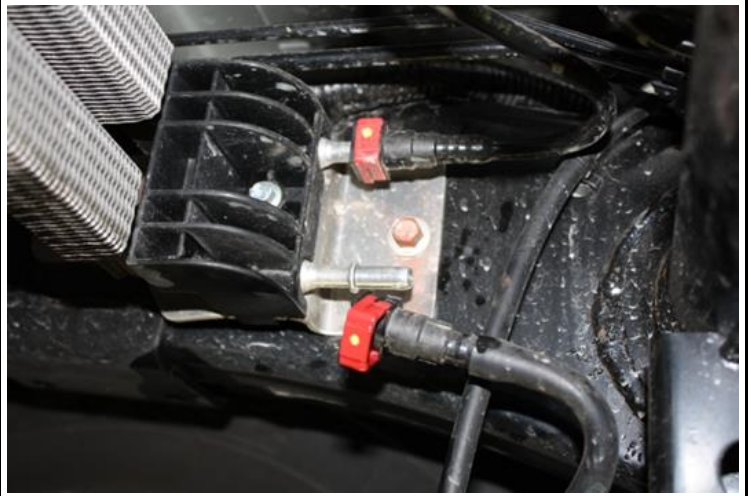
2. Using a lifting device, support the tank and remove the two 13mm bolts and the tank support straps. Lower the tank slowly, exposing the filler hose, fast fill breather and tank vent line at the rear left hand side tank. Undo the clamps on the tank end of all three hoses (filler, fast fill breather and vent hoses) and remove from the tank.



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3. Remove the return fuel line (RED) from the bottom of the fuel cooler.



4. Lower the tank down further, removing the sender plug wire, leaving the fuel lines on the tank, then lower the tank all the way out of the vehicle.



5. Remove the fuel cooler if vehicle is fitted with one.
- ⇒ **NOTE:** The fuel cooler is not required for a steel tank. Plastic tanks will insulate the fuel keeping the returned fuel hot. The new steel tank will allow the heat to radiate keeping the fuel cool.



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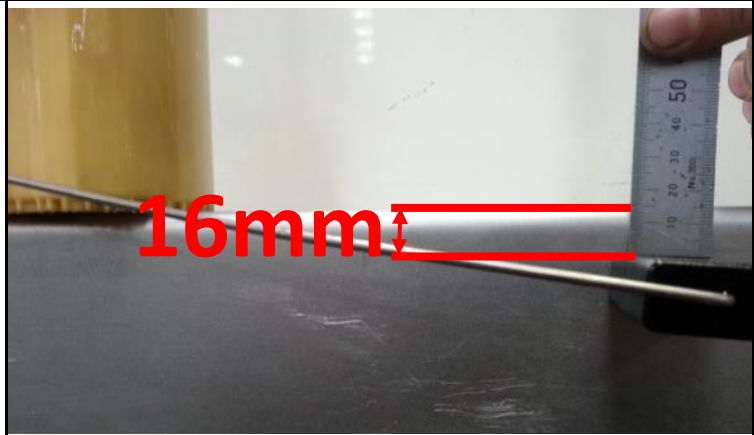
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6. Take the small return fuel line and carefully cut the plastic hose to remove the plugs.

 - Fit the elbows to the supplied **HOSE – FUEL INJECTION – 8mm** and hose clamps.



7. To allow a more accurate reading of your distance to empty (DTE) on your dash, with the new Brown Davis long range fuel tank, we recommend bending the float arm slightly. Do this on the straight section between the lower bend and the float, so the float sits 16mm below the base of the pump.



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8. After the new Brown Davis tank has been rinsed, remove the standard fuel lines and sender unit from the standard tank.
- Fit the sender unit into the new Brown Davis long range tank using the supplied Retaining Ring and M5 screws and washers.



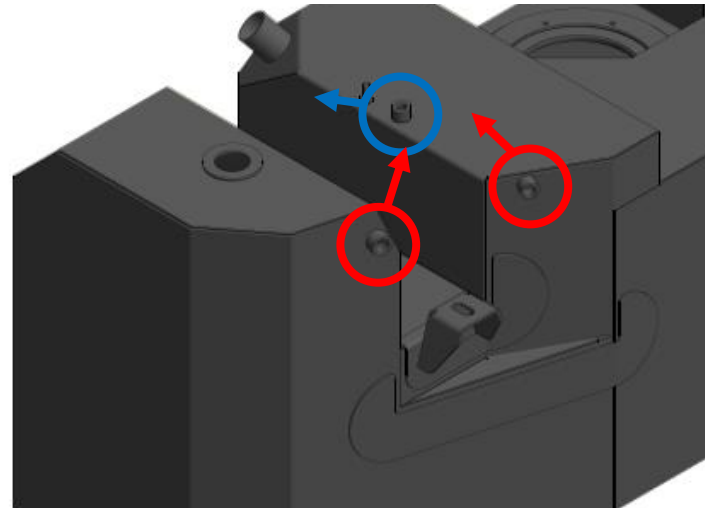
9. Using thread sealant, Teflon tape or the likes, fit all the brass fittings to the tank.

⇒ **2x BRASS – ELBOW - ½" × ¼" BSP (circled red)**

- Insure these angle up (direction of arrows) as the hose that connects to them loop over the vehicles chassis.

⇒ **BRASS – ELBOW – 5/8" × 3/8" BSP (circled blue)**

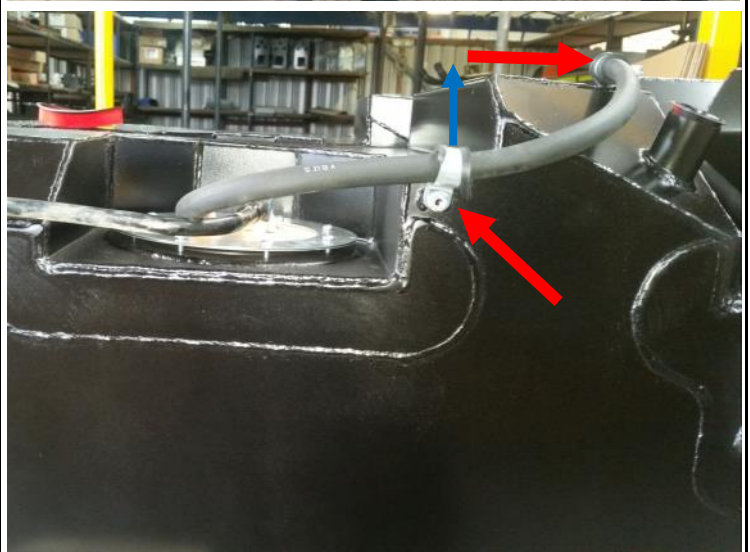
- Insure this fitting aims towards the rear left hand corner of the tank as the fast fill breather naturally sits this direction.
- Fit the Discriminator Valve into the washer welded to the tank.



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10. Plug the pick up line to the sender unit.
 - Use the 12mm cushion clamps to hold the standard hose to the new Brown Davis tank.
 - Plug the modified return line to the sender unit. Run the hose (as shown in bottom photo).
 - Use the 18mm cushion clamps to hold the hose to the new Brown Davis tank.
- ⇒ Insure the 18mm hose clamp on the side of the tank loop aims up. If the loop aims down then the hose will foul on hard lines when in place.



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11. Fit the tank mounting bracket with welded bolt (TB-FRPXR2-1) to the **rear** standard tank strap mounting point on the chassis, using the M10 × 20mm bolts with washers and nyloc nuts supplied. Tighten all bolts.
 - NOTE: ensure bracket is firmly pushed against the **rear** standard tank strap mounting point.



12. Fit the tank mounting bracket with weld on M10 captive to the chassis rail next to the hand brake cable bracket.
 - Drop the supplied M10 bolt through the mounting bracket and the chassis rail with panel washers in place, fasten with nylock nut.
 - Fasten M8 bolt into captive on the rail with the spring washer and flat washer in place.
 - Feed M8 bolt through the tail on the bracket then fasten with nylock nut.

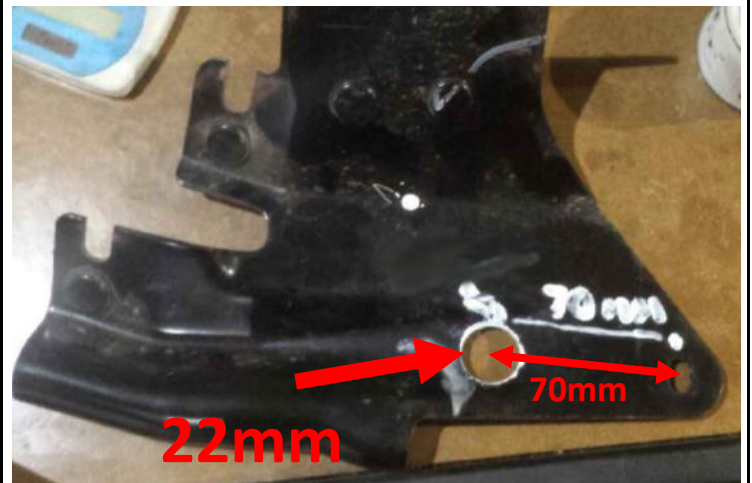
⇒ NOTE: Pre 2012 models hand break bracket is different than shown in pictures and may need to be modified, see next step for details.



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- Undo the bolts on the handbrake bracket.
 - Lift the handbrake bracket and slide the supplied mounting bracket into place.
 - Using the supplied hardware fasten the mounting bracket with the handbrake bracket on top.
- ⇒ NOTE: The captive on the supplied mounting bracket sits in the raised groove of the hand bracket, once the hardware is tightened the handbrake bracket will sit up but will not effect the cable. Brown Davis recommends using a 20mm M10 bolt to mount the tank in this secondary bracket.
- * Alternatively a 22mm hole can be drilled in the hand-brake bracket to allow the bracket to sit flatter, see photo.



13. Disconnect the bracket holding the diff breather line to the cross member and reconnect upside down, to allow more clearance on the new tank.

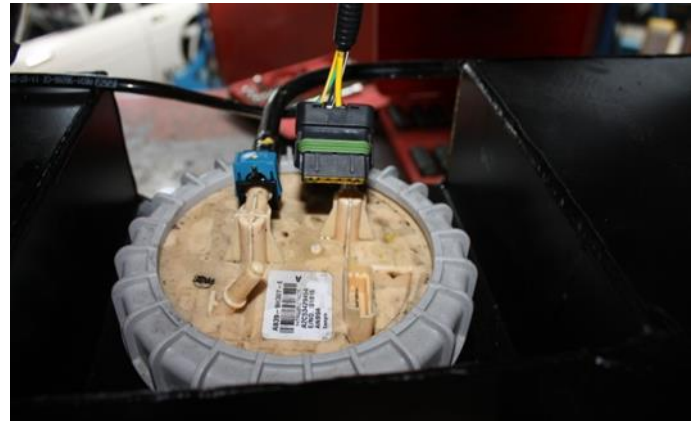


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14. Use a lifting device to raise the new tank into place.

- Whilst lifting the tank, plug the sender wire into the sender unit.



15. Connect the Filler, Fast Fill Breather and modified Return Line before tank is in final position.

- Fitting tip for filler: Push the tank towards tail shaft and reach arm up to reach the filler tube. Twisting the tank down on the driver side may help slide filler tube on. Ensure the filler does not kink.

16. Reconnect the Pick Up line



17. Lift the tank completely into place on the vehicle.

- Fit the standard bolt to the rear left side bracket.
- Use the supplied M10 bolt to fasten to front mounting bracket.
- Double nut the rear mounting bracket for extra security.



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18. Feed the supplied bolts on wire through the hole in the chassis above the side bracket.
- Fasten with shakeproof and panel washers and double nut for extra security.



19. Place the breather balance pipe (12.5mm HORIZON hose) over the cross member at the rear of the tank, and connect each end to the two **BRASS – ELBOW – 5/8" × 3/8" BSP** previously fitted to the new tank.



20. Double check all fuel line clamps and security of fuel lines. Ensure the drain plug is sealed after the rinsing process. Fill tank, road test and check for rattlers & squeaks.