



Brown Davis Automotive Pty. Ltd.

ABN: 72 657 573 544

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Last edited: 1/09/2010

Fuel Tank Part List and Installation Instructions

TANK P/N: FXUR3

FORD XH on UTILITY / PANEL VAN & LONGREACH (EFI)
120tr REPLACEMENT TANK

Item	Description	Quantity	Part number	P	C
1	TANK – REPLACEMENT	1	FXUR3		
2	HOSE – TMP - 6mm	2.36m			
3	HOSE – TMP - 16mm	2.36m			
4	HOSE – FUEL INJECTION – 8mm	1.1m			
5	HOSE CLAMP – STAINLESS - 8-16mm	10			
6	HOSE CLAMP – STAINLESS - 16-25mm	4			
7	DRAIN PLUG –MAGNETIC – M14 (fitted to tank)	1	DP-M14		
8	ELBOW – BRASS - 5/8" x 1/4" BSP	2			
9	BRASS – PLUG - 1/4" BSP	1			
10	T-PIECE - NYLON BARBED - 5/8"	1			
11	T-PIECE - NYLON BARBED - 1/4"	1			
12	SET SCREW – HEX – M10 x 30mm – PLATED 8.8	2			
13	NUT – STANDARD PLATED – M10	4			
14	WASHER – PANEL PLATED – M10	4			
15	WASHER – SHAKEPROOF INTERNAL PLATED – M10	2			
16	SELF TAPER SCREW – BUTTON HEAD – 13mm – STAINLESS	4			
17	DISCRIMINATOR VALVE	2			
18	DISCRIMINATOR VALVE SEAL	2			
19	WARRANTY CARD & INFORMATION SHEET	1			
20	BROWN DAVIS AUTOMOTIVE STICKER	1			

Packed by (P): _____

Checked by (C): _____

Date Packed: ____ / ____ / ____

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All Brown Davis Automotive fuel tank kits are manufactured to Australian Standards and the Australian Design Rules where applicable and carry a full **3 Year Warranty**. Construction in 2.0 mm cold rolled, aluminium coated steel ensures maximum strength and durability and minimum corrosion susceptibility. More than 30 years of testing within the field has shown that this gauge of steel is sufficiently impact resistant that an additional tank guard is not necessary (most standard tank guards are thinner than 1.5 mm).

All tanks are M.I.G. (Metal Inert Gas) welded to ensure the strongest possible seams and are baffled to prevent fuel surge. They are then pressure tested using two different techniques to eliminate the possibility of leaks. Drain plugs are fitted horizontally to prevent them being damaged if the tank is scraped over rocks and are magnetic to collect any metallic dirt that may enter your fuel system.

In all cases, Brown Davis Automotive fuel tanks are designed with general off road use in mind and are designed not to compromise ground clearance, entry, exit or ramp over angles.

Please remember it is the driver's responsibility to operate their vehicle in a sensible manner in 4WD conditions, Brown Davis Automotive cannot be held responsible for the abuse of your vehicle and subsequent possible fuel tank damage.

REPLACEMENT TANKS This tank is a replacement for the standard tank and fits in the same location. The standard filler is retained as is the fuel gauge sender unit which still works in the same manner except it takes longer to reach empty. Rearrangement of the exhaust system **IS NOT** necessary with this fitment.

ANY QUESTIONS OR INFORMATION REQUIRED IN RELATION THE BELOW INSTRUCTIONS PLEASE DO NOT HESITATE TO CONTACT BROWN DAVIS HEAD OFFICE OR ONE OF OUR DISTRIBUTORS.

PLEASE ENSURE ALL CONNECTIONS AND MOUNTINGS ARE CHECKED A SECOND TIME AFTER FINISHING YOUR INSTALLATION TO CONFIRM THERE ARE NO LEAKS AND THAT ALL BOLTS ARE TIGHT. ALWAYS ROAD TEST THE VEHICLE AND MAKE SURE THERE IS COMPLETE SUSPENSION TRAVEL CLEARANCE.

BROWN DAVIS CAN TAKE NO RESPONSIBILITY FOR AFTER MARKET SUSPENSION SYSTEMS INTERACTING WITH THE TANK, IF FITTED.



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FITTING

- 1 Unscrew and remove the front passenger side, ute back "side cover panel" in tray area. Unscrew and remove, the "removable floor section" at the front of the tray area. Unplug the wiring loom for the fuel gauge/pump assembly and disconnect the fuel pickup and return hoses (mark on the floorpan next to where the fuel hoses connect to the fuel pipes in the floor at the rear of the tank - this is to ensure correct refitting later as the fuel hoses themselves will be removed and discarded).
- 2 Unscrew and remove the fuel gauge/pump assembly from the standard fuel tank (Clean the filter on the end of the fuel pump if it is at all dirty, do this very carefully so as not to damage the filter - **DO NOT USE COMPRESSED AIR**). Through the fuel gauge/pump flange entry in the fuel tank, syphon or pump the remaining fuel out of the standard fuel tank (The standard tank does not have a drain plug) into a jerry can for storage.
- 3 Disconnect and retain the rubber (58mm) fuel filler hose and (16mm) fast fill breather hose from the fuel tank end of these hoses (The filler neck end of the (58mm) filler hose can also be loosened and the hose slid back onto the filler neck as far as possible, to leave working room for the removal old standard tank and fitting of the new long range tank).
- 4 Un-clip the vent/purge hoses (4 of) collection block from the body at the top of the passenger side ute back side cover panel. Disconnect the single 6mm hose from the top of this collection block. This hose later, will be connected to the 2 new discriminator valves fitted into the top of the expansion tanks on the new fuel tank.
- 5 Unbolt and remove the standard fuel tank (4 screws each side).
- 6 The centre "removable floor section" support crossmember (in the middle of the car above the tailshaft tunnel), needs to be removed to enable the new long range tank to be fitted. This is done by drilling/chiselling/grinding the welds and spotwelds. Retain this bracket for refitting later.
- 7 The central fuel tank mounting bracket also must be removed from the top of the tailshaft tunnel, by drilling/chiselling the spotwelds (Be careful not to puncture the floorpan/tunnel - make good and water seal if you do). Discard this bracket when removed.
- 8 Confirm that the Brown Davis long range fuel tank is perfectly clean inside before assembly and installation by rinsing out the inside thoroughly, as should always be done with any new component installed into the fuel system of any vehicle. Use 4 to 5 litres of petrol, kerosene or methylated spirits for this rinsing process which should be drained and discarded afterwards.
- 9 Install the standard fuel gauge/pump assembly into the new long range fuel tank using the original screws and gasket. Take care to check position of the pump assembly to confirm it



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- touches the bottom of the new tank and confirm that the fuel gauge float arm can swing through its arc without touching anything inside the tank.
- 10 Install all brass fittings into the new replacement long range fuel tank using teflon tape or the like on all threads. Do not forget the drain plug not shown. **(Refer diagram 1)** Fit also the 2 new discriminator valves and their seals into the top of the new fuel tank.
 - 11 Lift the new tank up into the back of the vehicle and lower it into place. Mark out and drill the passenger side mounting holes (6mm) in the tank and bolt up using the standard bolts to mount the new tank. Position the new driver's side fuel tank mounting bracket, and mark as to where to drill the (4) tank to bracket mounting bolt holes. Remove the bracket and drill these mounting holes (6mm). Refit bracket under tank and bolt on using 1/4" bolts, washers and double nuts supplied. This bracket can now be mounted to the floor using the (5) self drilling, self tapping screws supplied. Clearance holes (5mm) should be drilled into the mounting bracket, and the self drilling screws can drill the standard floor pan. The centre tunnel mounting bracket can now be drilled (10mm) and the M10 screws washers and double nuts supplied, fitted.
 - 12 Reinstall the centre "removable floor section" support crossmember (removed in step 5). This can be refitted with self tapping screws supplied (This crossmember takes only downward load and therefore requires no additional location than these screws - it should remain removable, NOT WELDED, to enable future tank servicing!).
 - 13 Reconnect filler, by sliding the 58mm filler hose back onto the new filler neck and tighten the original hose clamps. The standard fast fill breather hose can now be connected to the new "2 way elbow fast fill breather" fitting, on the passenger side rear corner of the new fuel tank. Run an additional 16mm fast fill breather hose (supplied) across from the 5/8" elbow fitting on the drivers side of the new fuel tank, around the rearmost end of the centre "removable floor section" support crossmember, across to the other side of the "2 way elbow fast fill breather" fitting on the passenger side. This hose must not droop lower than the top of the fuel tank at any time. Run also the new 6mm hose supplied, from each of the new discriminator valves (installed in step 10) to the 6mm "T" piece supplied and then back to the purge hose, also around the rearmost end of the centre "removable floor section" support crossmember (refer step 4).
 - 14 Reconnect the wiring to the fuel gauge sender unit (a piece of tape holds the plug to the floorpan at the rear; this can be removed to enable greater length, as to reach the fuel gauge/pump wiring loom).
 - 15 Cut off the fuel hose from the fittings coming out of the floorpan at the rear, near the passenger side of the fuel tank. Fit new (8mm) fuel hose and hose clamps supplied, from these fittings to the fuel gauge/pump fittings. Be careful to reconnect in the same order.
WARNING: Incorrect refitting of hoses to the pump/sender can damage pump unit.
 - 16 Refit the front passenger side ute back "side cover panel" in tray area.
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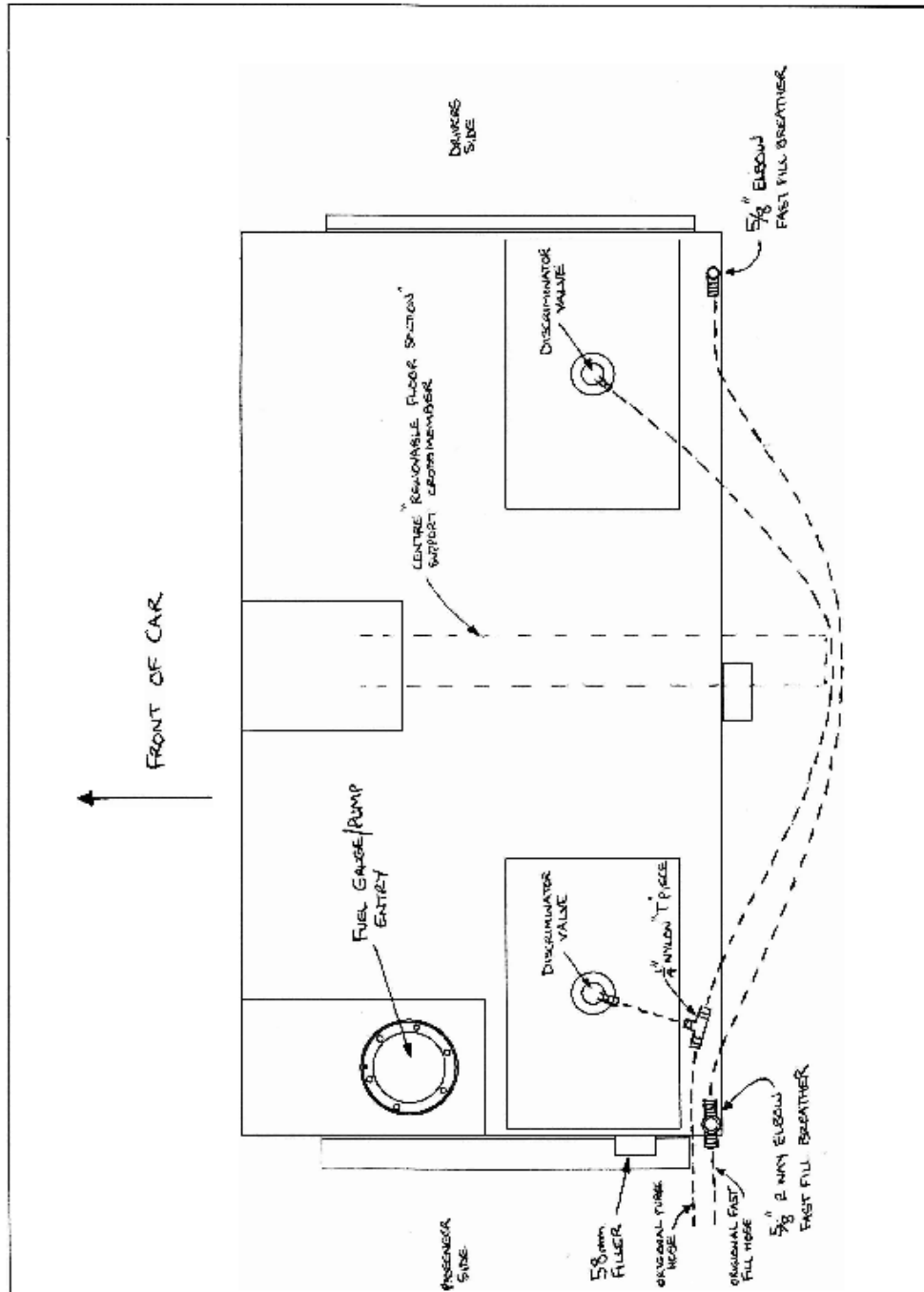
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- 17 Confirm the drain plug has been sealed into the tank and fill with the fuel drained in step 1. Refit the "removable floor section" at the front in the tray area. Replace the fuel filter under the bonnet after the first 1000km or 2 to 3 tank fills of the new tank.





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OPERATION INFORMATION

The operation of your new Brown Davis Automotive long range fuel tank is little different from the original tank.

Simply fill the long range/auxiliary tank exactly as with a standard tank. (It just takes more fuel to fill, and a dual filler will be used for filling auxiliary tanks).

The fuel gauge on the vehicles dash will read as with the standard tank. It should read with the same degree of accuracy as it did with the standard tank other than staying on full for most of the new increase in capacity. For about 20% more than the standard tank held the gauge will now read in proportion from full down to empty. Auxiliary tanks come with a separate tank gauge to show separate fuel level to main tank.

The low fuel light will still function as normal with it coming "on" at about 20% more fuel volume left to go than it used to, to warn you of low fuel.

Remember your new long range tank(s) are carrying a lot more fuel than standard. Remain aware of how much fuel has been used during the initial period of the gauge remaining on full for future reference in estimating fuel usage and consumption.

Maintenance and service of your new Brown Davis Automotive long range fuel tank other than the recommended 1000km check and filter change should be in align with the normal vehicle Manufactures service schedule and guidelines. Remember the long range tank has a magnetic drain plug that the standard tank did not. With the fuel level low the drain plug can be removed and cleaned to remove any metal fragments introduced from the filler bowser scraping on the filler tube when filling or particles and rust flakes from jerry cans used on long trips. This facility is supplied to protect the in-tank fuel pumps fitted to most modern vehicle fuel tanks.

Finally make sure the warranty card is filled out completely and returned to Brown Davis Automotive and that the warranty information is read and understood. If there are any queries about this or any of the above information please contact us at Brown Davis at the attached address or phone and fax numbers for assistance.