



Brown Davis Automotive Pty. Ltd.
ABN: 72 657 573 544

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JCHR3

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Last edited: 1/09/2010

Fuel Tank Kit List and Installation Instructions

TANK P/N: JCHR3

JEEP CHEROKEE 1998on (PLASTIC STANDARD TANK)
REPLACEMENT TANK

Item	Description	Quantity	Part number	P	C
1	TANK – REPLACEMENT	1	JCHR3		
2	HOSE – TMP – 16mm	0.55m			
3	HOSE – FUEL AND EMISSION - 6mm	0.30m			
4	HOSE CLAMP – STAINLESS – 8-16mm	2			
5	HOSE CLAMP – STAINLESS - 12-20mm	2			
6	BRASS – TAIL BARB - 5/8" x 1/4" BSP	1			
7	BRASS – PLUG - 1/4" BSP	1			
8	DRAIN PLUG – MAGNETIC – M14 (fitted to tank)	1	DP-M14		
9	SET SCREW – HEX – M10 x 30mm – ON WIRE – PLATED 8.8	3			
10	NUT – STANDARD PLATED – M10	5			
11	WASHER – SHAKEPROOF INTERNAL PLATED – M10	3			
12	SET SCREW – HEX – PLATED - 7/16 x 1 ¼ UNF	1			
13	NUT – STANDARD PLATED – 7/16	1			
14	WASHER – FLAT PLATED – 7/16	1			
15	WASHER – SHAKEPROOF INTERNAL PLATED – 7/16	1			
16	BLANKING GRUMMET - 20mm	2			
17	DISCRIMINATOR VALVE	1			
18	DISCRIMINATOR VALVE SEAL	1			
19	FLOOR STRENGTHENING STRIP 3mm – SINGLE HOLE 10mm - 25 x 80mm	2	FS-10-025080		
20	WARRANTY CARD & INFORMATION SHEET	1			
21	BROWN DAVIS AUTOMOTIVE STICKER	1			

Packed by (P): _____

Checked by (C): _____

Date Packed: ____ / ____ / ____

PH: +61 (3) 9762 8722 FAX: +61 (3) 9762 9829
47 Holloway Drive, Bayswater, Victoria, Australia 3153

info@browndavis.com.au www.browndavis.com.au



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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 Place vehicle on hoist (or similar) and raise to convenient working height.
- 2 Drain all the fuel from the standard rear tank. Remove the filler neck cover plate and disconnect the filler hose and the fast fill breather, from the filler neck on the body. Disconnect the fuel gauge wiring, fuel pickup and fuel return hoses located on the front face of the standard tank. Unbolt the standard tank guard and discard it, unbolt the standard tank straps then carefully lower it to the ground (discard tank straps also).
- 3 Carefully remove the two white discriminator valves and their rubber seals from the top of the standard tank and retain for refitting into new tank.
- 4 Confirm that the Brown Davis long range 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, diesel or methylated spirits for this rinsing process which should be drained and discarded afterwards. Wiping out the inside of the injection pump swirlpot with a clean rag in through the pump entry boss in the front of the new tank to confirm absolute cleanliness is not a bad idea, nor is a second rinse. Unscrew and remove the sender/pump unit from the original tank. Refit the sender/pump unit into the new long range tank using the original bayonet ring. Take care not to bend or damage the assembly. Install all brass fittings into the replacement long range fuel tank using teflon tape or the like on all threads. Do not forget the drain plug.
- 5 Refit the white discriminator valves (removed in Step 3) into the expansion chamber fittings on the top of the new tank. Refit original 6mm plastic vent hose from this fitting across top of tank, ready to reconnect to the standard purge line on chassis.
- 6 Transfer the filler, fast fill breather, pickup and return hoses to the new long range tank.
WARNING: Incorrect refitting of pickup and return hoses to the pump can damage pump unit.
- 7 Lift new tank up into position supporting it on a jack or similar. Align brackets with captive nuts and refit original bolts. Fit 7/16" bolt, washers and locknut to rear centre bracket. Drill the mounting holes 3/8" up through the chassis at the front side bracket locations on the new tank. Drill access holes 20mm in the side of the chassis rail to allow installation of the bolts on positioning wires into the side brackets. Lower in new bolts and fit washers and double nuts (supplied). Tighten all bolts. Fit grummets (supplied) into the 20mm access holes just drilled, to reseal them.
- 8 Connect all hoses to their original positions. Refit the cover plate over the filler area.
WARNING: Incorrect connection of the fuel hoses to the pump/sender could cause damage to the pump.

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- 9 Return vehicle to ground level and remove from hoist (or similar).
 - 10 Confirm the drain plug has been sealed into the tank and fill with the fuel drained in Step 2. Replace the fuel filter under the bonnet after the first 1000km or 2 to 3 tank fills of the new tank and double check mounting bolts.

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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.

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