



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

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**NPGQR3**

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Last edited: 1/09/2010

## **Fuel Tank Part List and Installation Instructions**

**TANK P/N: NPGQR3**

NISSAN GQ PATROL CAB/TRAY (LEAF SPRUNG) UTE  
145ltr REPLACEMENT TANK

Item	Description	Quantity	Part number	P	C
1	TANK – REPLACEMENT	1	NPGQR3		
2	HOSE – TMP - 6mm	1.0m			
3	HOSE – FUEL INJECTION - 8mm	1.0m			
4	HOSE CLAMP – STAINLESS - 8-16mm	4			
5	HOSE CLAMP – STAINLESS - 12-20mm	1			
6	FUEL PICK UP - 3/8" x 1/4" BSP ELBOW	1			
7	BRASS – ELBOW - 1/4" x 1/4" BSP	1			
8	BRASS – TAIL BARB - 1/2" x 1/4" BSP	1			
9	BRASS – TAIL BARB - 1/4" x 1/4" BSP	1			
10	BRASS – PLUG - 1/4" BSP	1			
11	DRAIN PLUG – MAGNETIC – M14 (fitted to tank)	1	DP-M14		
12	BOLT – HEX – M10 x 70mm – PLATED 8.8	3			
13	NUT – STANDARD PLATED – M10	6			
14	WASHER – FLAT PLATED – M10	3			
15	WASHER – SHAKEPROOF INTERNAL PLATED – M10	3			
16	CRUSH TUBE 5/8" - 50mm	3	CT-058-050		
17	WARRANTY CARD & INFORMATION SHEET	1			
18	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 INTERFERING WITH THE TANK, IF FITTED.**

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**FITTING**

- 1 Remove tailshaft, taking care to mark the correct alignment for refitting.
- 2 Drain and unbolt the standard tank and guard, then carefully lower it, until you can access the fuel gauge wiring and unplug it. Then lower tank to the ground, first disconnecting the hoses from the steel fuel lines on the chassis rail. Unbolt and remove the rear tank/guard mount from the chassis.
- 3 Check to confirm that the Brown Davis tank is perfectly clean inside before assembly and installation, by rinsing out with petrol, as should always be done with any new component installed into the fuel system of any vehicle. Remove the fuel gauge unit from the standard tank. Position unit in new tank and adjust float arm length to ensure the accuracy of the fuel gauge (The float should stop about 2mm off the top and bottom of the tank and ensure that it does not foul on the sides), refit the sender unit into the new long range tank using the screw ring supplied and the original "O" ring.
- 4 Install all brass fittings into the new replacement long range fuel tank using teflon tape or the like on all threads. **(Refer diagram 1)**
- 5 Fit new longer pickup and return hoses from kit to respective steel fuel lines on chassis. Transfer the filler and fast fill breather hoses to the new long range tank. Retain the pink hose used for the vent on the standard tank, and the discriminator valve in this line. Reconnect this hose to the expansion box vent fitting on the new tank.
- 6 Lift the new tank into position at an angle up on the driver's side to allow the filler and fast fill hoses to be fed over the chassis. Remember to reconnect the wiring to the fuel gauge sender unit as one lifts the tank into position. Hold in place with a jack or similar, and then at the front of the tank, mount up (using the new long bolts, 50mm long crush tubes, washers and nuts supplied). Mount the rear of the new tank re-using the standard rear tank mounting bolts.
- 7 Tighten bolts, check clearances, refit hoses and wiring. Refit tailshaft, noting again the alignment.
- 8 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. On some diesel vehicles it is necessary to bleed the fuel system after such a tank installation (refer manufacturers handbook).



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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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