



**Brown Davis Automotive Pty. Ltd.**

ABN: 72 657 573 544

*Copyright Brown Davis Automotive Pty. Ltd. This document contains confidential and Technical information the property of Brown Davis Automotive Pty. Ltd.*

**NN97R1**

**1**

Last edited: 21/09/2010

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

**TANK P/N: NN97R1**

NISSAN NAVARA (4WD) – (1997 on all models Petrol & Diesel)  
125ltr REPLACEMENT TANK

Item	Description	Quantity	Part number	P	C
1	TANK – REPLACEMENT	1	NN97R1		
2	HOSE – FUEL AND EMISSION - 6.5mm	1.0m			
3	HOSE – FUEL AND EMISSION - 10mm	0.65m			
4	HOSE – TMP - 6mm	0.30m			
5	HOSE CLAMP – NORMA – 12mm	6			
6	HOSE CLAMP – STAINLESS - 8-16mm	2			
7	HOSE CLAMP – STAINLESS - 32-50mm	2			
8	DRAIN PLUG – MAGNETIC – M14 (fitted to tank)	1	DP-M14		
9	BRASS – TAIL BARB – 5/8" x 1/4" BSP	1			
10	BRASS – TAIL BARB - 1/4" x 1/4" BSP	1			
11	SET SCREW – HEX – M10 x 30mm – PLATED 8.8	3			
12	NUT – STANDARD PLATED – M10	6			
13	WASHER – PANEL PLATED – M10	6			
14	WASHER – SHAKEPROOF INTERNAL PLATED – M10	3			
15	TANK BRACKET – 4WD MOUNTING BRACKET	1	TB-NN97R1-a		
16	TANK BRACKET - VENT VALVE MOUNTING BRACKET	1	TB-NN97R1-b		
17	DISC MAGNET (fitted in swirl pot)	1			
18	WARRANTY CARD & INFORMATION SHEET	1			
19	BROWN DAVIS AUTOMOTIVE STICKER	1			

Packed by (P): \_\_\_\_\_

Checked by (C): \_\_\_\_\_

Date Packed: \_\_\_\_ / \_\_\_\_ / \_\_\_\_



**Brown Davis Automotive Pty. Ltd.**

ABN: 72 657 573 544

*Copyright Brown Davis Automotive Pty. Ltd. This document contains confidential and Technical information the property of Brown Davis Automotive Pty. Ltd.*

**NN97R1**

**2**

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.**

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**



**Brown Davis Automotive Pty. Ltd.**

ABN: 72 657 573 544

*Copyright Brown Davis Automotive Pty. Ltd. This document contains confidential and Technical information the property of Brown Davis Automotive Pty. Ltd.*

**NN97R1**

**3**

---

**FITTING (fitting time is approximately 3 hours)**

**FITTING**

- 1 Install all brass fittings into the replacement long range fuel tank using Teflon tape or the like on all threads. Although your Brown Davis Automotive long range tank has been cleaned and sealed at the factory, it is essential that a final rinse and inspection is carried out to ensure that the new fuel tank is impeccably clean before fitting to your vehicle. Note: there is a magnetic disc fitted into the bottom of the swirl pot, after your last rinse remove and clean this magnet before replacing it carefully back into the tank in the exact same position.
- 2 Drain the fuel from the vehicle's original tank. (If there is no drain plug, use a pump or syphon hose)
- 3 Disconnect the fuel supply & return hoses and 6mm vent hose from the steel lines on the chassis. Also disconnect the filler and fast-fill breather hoses from the filler neck, but do not disconnect any of these hoses from their respective tank connections at this stage. Also disconnect the fuel sender wiring loom at the plug on the tank sender unit.
- 4 Remove the tank stone guard and then the tank itself, keeping the mounting bolts for both, to be used later for the fitment of the new long range tank.
- 5 Remove the stone guard support bracket and the fuel tank front and rear mounting brackets from the chassis rail and crossmember. All the bolts and the rear tank mounting bracket will be used for fitting the new Brown Davis long range tank.
- 6 Fit the new front mounting bracket (TB-NN97R1-a) to the chassis crossmember that supports the centre tailshaft bearing using the original bolts. Two extra bolts retained from removal of the stone guard can also be used on some models.
- 7 Remove the complete tailshaft making sure to mark both sections for correct alignment when refitting.
- 8 Remove the vent check valve from the top of the original tank, taking care as it is plastic and easy to break. Retain one section of hose and the spring clips for later reconnection to the vent line on the chassis rail. Clip this valve to the vent valve bracket supplied (TB-NN97R1-b) and removing the bolt from the rear-most chassis fuel line bracket, slide this new mounting bracket between the fuel and brake lines and replace the bolt.
- 9 Check that the valve's direction of flow is correct (engine to tank) and use the original hose and clips to connect it to the vent line on the chassis. Use the 6mm hose and the clamps supplied in the kit and connect it to the tank side of the valve ready to join up to the new long range tank.

---

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**



**Brown Davis Automotive Pty. Ltd.**

ABN: 72 657 573 544

*Copyright Brown Davis Automotive Pty. Ltd. This document contains confidential and Technical information the property of Brown Davis Automotive Pty. Ltd.*

**NN97R1**

**4**

- 
- 10 Remove the pickup/sender unit from the top of the original tank with the hoses attached and using the standard screws, washers and o-ring transfer it into the Brown Davis Automotive long range tank. The hoses will point to the right hand side and slightly rearwards.  
**Note: 1.** On late models, 5 to 15mm may need to be removed from the pickup tube. The spring loaded plastic pickup needs to be removed first. Ensure that there is 10mm spring travel in the pickup fitting when the fuel sender is fitted.  
**2.** On late models the tank sender orientation of supply/return connections changes so that they point towards the centre of the vehicle.
  - 11 Lift the new Brown Davis long range tank into position with the front tank bracket over the top of the mounting bracket fitted in "step 6" and support with a jack or similar (**Note: 2008 model D22 2.5ltr Diesel, bracket to fit under support mounting bracket**). Refit the rear tank support bracket removed as part of "step 5" and bolt up the rear of the new long range tank. Check for chassis to tank clearance of approximately 40mm and 10mm or more of floor rib clearance.
  - 12 The tailshaft can now be refitted checking for the correct alignment marked as part of "step 7". The front tank bracket can now be bolted to its crossmember using the M10 bolts, nuts and washers supplied in the kit. Confirm tailshaft clearance and that the steel brake lines and handbrake cable clear the corner of the new tank.
  - 13 Fuel pickup and return hoses should be connected to the lines on the chassis and the breather 6mm hose connected to the expansion box fitting on top of the new Brown Davis long range tank.
  - 14 Remove the filler assembly from the old tank and remove the fast-fill breather hose from it. Use the fast-fill hose, joining it to the tank and filler using the clamps supplied. The main filler hose may need to be trimmed (50mm from bottom and 25mm from top approx. for dual cab models is a good guide).  
**Note: 1.** On late models, reuse the original filler & fast filler hoses.  
**2.** On late models trim 6.5 cm from tank end of filler hose.
  - 15 Check all bolts and clamps are tight and confirm the drain plug has been sealed into the new tank and fill with the fuel drained in "step 2". Replacing 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 is recommended. Run the engine and check for hose leaks. On some diesel vehicles it is necessary to bleed the fuel system after such a tank installation (refer manufacturers handbook).



**Brown Davis Automotive Pty. Ltd.**

ABN: 72 657 573 544

*Copyright Brown Davis Automotive Pty. Ltd. This document contains confidential and Technical information the property of Brown Davis Automotive Pty. Ltd.*

**NN97R1**

**5**

### **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.**

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**