



Brown Davis Automotive Pty. Ltd.

ABN: 72 657 573 544

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HYTR1

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Last edited: 28/04/2014

## Fuel Tank Part List and Installation Instructions

TANK P/N: **HYTR1**

HYUNDAI TERRACAN  
120ltr REPLACEMENT TANK

Item	Description	Quantity	Part number	P	C
1	TANK – REPLACEMENT	1	HYTR1		
2	HOSE – FUEL AND EMISSION – 6.5mm	1m			
3	HOSE – FUEL AND EMISSION - 8mm	0.5m			
4	HOSE – FUEL AND EMISSION - 10mm	0.5m			
5	HOSE – TMP - 16mm	0.5m			
6	BRASS – ELBOW – 5/8" x 3/8" BSP	1			
7	WASHER – PANEL PLATED - M10	4			
8	HOSE CLAMP – STAINLESS - 8-16mm	4			
9	HOSE CLAMP – STAINLESS - 16-25mm	2			
10	HOSE CLAMP – STAINLESS - 40-60mm	2			
11	FUEL FILTER – INLINE – 8mm	1			
12	DISCRIMINATOR VALVE	1			
13	DISCRIMINATOR VALVE SEAL	1			
14	BLANK OFF HOSE – 6mm fuel hose & magnet	1			
15	DRAIN PLUG – MAGNETIC – M14 (fitted to tank)	1	DP-M14		
16	WARRANTY CARD & INFORMATION SHEET	1			
17	BROWN DAVIS AUTOMOTIVE STICKER	1			

\*\*HYTR1 Blank Off Hose reference image below\*\*



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. Your Brown Davis Automotive long range tank has been cleaned and sealed at the factory, however 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 may be 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. Begin by preparing to remove the factory tank. Undo the filler neck and breather line.



3. With the filler and breather disconnected, support the tank to allow the undoing of the tank mount nuts. There are four nuts to undo which will release the tank. Do not allow the tank to drop as the fuel lines are still connected on top of the tank.
4. Lower the tank slowly to give enough room between the tank and the body to gain access to the fuel lines. Disconnect these lines from the top of the gauge sender unit. Once released, the tank is free to lower completely.



5. With the tank out and away from the vehicle, the gauge sender unit needs to be removed from the standard tank and a minor modification made to the pick up. Using a broad flat head screw driver and hammer/nylon mallet, undo the retaining ring around the sender unit. Once removed, pull the gauge sender unit out of the tank.

*Note: There is a rubber gasket between the sender unit and the tank; this must be retained for fitment into the Brown Davis tank!*



6. With the sender unit out, take a small flat head screw driver to lever off the pick up filter from the bottom of the unit being careful not to damage the retaining clips. Once removed, the very base of the pick up needs to be cut at 45 degree's to the bottom of the pickup as shown. After trimming, file the edges smooth and thoroughly blow out the pick up to ensure no filings remain in the pick up before re-installing the filter to the bottom.



7. Begin preparing the Brown Davis tank for installation by ensuring the tank is thoroughly clean and rinsed out with fresh fuel. Proceed to fit the gauge sender unit to the tank ensuring the factory rubber gasket is also re-fitted. The supplied  $\frac{1}{4}$ " x  $\frac{1}{2}$ " BSP brass elbow also needs to be installed into the tapped captive thread using thread sealant. The  $\frac{5}{16}$ " blanking grommet and hose clamp needs to be fitted to the top of the gauge sender unit on the outlet shown, along with the 16mm TMP hose to the brass elbow fitting with a hose clamp. Lastly install the rubber gasket and discriminator valve to the top of the tank, fitting 6mm fuel hose and clamp also. Lastly fit the factory fuel filler hose to the new Brown Davis tank.



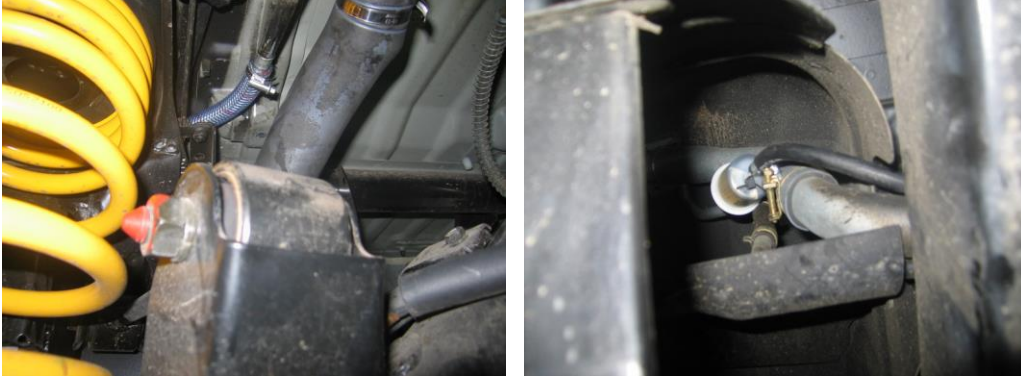
8. Prior to fitting the tank to the vehicle the fuel lines on the car need to be changed. Swap the factory hose for the supplied 8mm and 10mm fuel hose. Furthermore, on the rear right hand mounting bracket, the locating dowel on the mount needs to be removed. Using vice grips locked on tight to the dowel, simply bend backwards and forwards to break the dowel off.



9. The tank is now ready for fitment. Raise the tank up into position making sure the fuel filler hose and breather lines clear the rearward components of the vehicle. When raised high enough, the fuel lines can be reconnected to the sender unit. Ensure the hoses are clamped firmly. When ready, begin to raise the tank up to the vehicle mounts, making sure the fuel hoses and filler/breather hoses do not catch anyway or become squashed by the tank. Due to vehicle variance in manufacturing, the mounts may need to be filed slightly to locate on each threaded mount, once in place fasten with the factory nuts and M10 panel washers.



10. Re-connect the fuel filler hose and TMP breather hose to the filler tubes. For the 6mm fuel hose breather line from the discriminator valve, route this along the top of the filler tubes up into the wheel arch near the fuel door. Retain with zip ties, and fit the supplied fuel filter to the top of this hose as shown.



11. Re-check all lines and mounts to ensure the fitment is complete. Re-fill the tank and start the car to sit at idle and check for any possible leaks at fittings or hoses. Test drive the vehicle to ensure normal performance remains, and upon return re-inspect the fitment for any further possible leaks. The tank installation is complete.



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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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