

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

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**TOYOTA HIACE—LONG WHEEL BASE - 60ltr
AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS
PART NUMBER: THIA2 (Y FILL POINT)**

Item #	Description	Quantity	Part No.	P	C
1	TANK—REPLACEMENT	1	THIA2	-	-
2	DRAIN PLUG—MAGNETIC—M14 (FITTED TO THE TANK)	1		-	-
3	HOSE – FUEL AND EMISSION - 8mm	3m			
4	HOSE – FUEL AND EMISSION - 12.5mm	850mm			
5	HOSE – FILLER – 35mm	80mm (3)			
6	HOSE – FILLER – 35mm	100mm			
7	HOSE CLAMP – STAINLESS – 8-16mm	8			
8	HOSE CLAMP – STAINLESS – 12-22mm	6			
9	HOSE CLAMP – STAINLESS – 32-50mm	8			
10	BRASS FITTING - TAILBARB - 5/16" x 1/8" BSP	2			
11	BRASS FITTING - ELBOW - 1/2" x 1/4" BSP	1			
12	BRASS FITTING - ELBOW - 5/16" x 1/4" BSP	1			
13	TEE PIECE - 1/2" x 1/2" x 1/2"	1			
14	Y PIECE - 1/2" x 1/2" x 5/16"	1			
15	Y PIECE - 35mm x 35mm x 35mm	1			
16	CABLE TIE - 8" BLACK	5			
17	WIRE – TWIN CORE – 3.0mm – RED/BLACK	4.5m			
18	SENDER UNIT - VDO 220-004	1			
19	FUEL PUMP – POSI-FLO	1			
20	FUEL FILTER – INLINE – 8mm	1			
21	SWITCH – ROCKER - ON/OFF RED PILOT	1			
22	FUEL GUAGE – CP90 LED DASH UNIT	1			
23	CRIMP FITTING – SPADE FEMALE 6mm - RED	6			
24	CRIMP FITTING – SPADE FEMALE 4mm - RED	1			
25	CRIMP FITTING - RING 6MM - RED	1			
26	CRIMP FITTING – PIGGY BACK - SPADE FEMALE 6mm - RED	2			
27	SET SCREW – PAN HEAD – M4 x 10mm – PLATED 8.8	5			
28	WASHER – SPRING PLATED – M4	5			
29	SET SCREW – HEX – M8 x 25mm – PLATED 8.8	1			
30	WASHER – SPRING PLATED – M8	1			
31	WASHER – FLAT PLATED – M8	1			
32	NUT– STANDARD PLATED – M8	2			

KIT CONTINUES ON NEXT PAGE



LONG RANGE FUEL TANKS
THIA2

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Item #	Description	Quantity	Part No.	P	C
33	SET SCREW – HEX – M8 x 25mm – ON WIRE	4			
34	WASHER – SHAKEPROOF PLATED – M10	4			
35	WASHER – PANEL PLATED – M10	4			
36	NUT– STANDARD PLATED – M10	8			
37	FILLER TUBE	1	FT-THIA2-2		
38	HEAT SHIELD	1	HS-THIA2		
39	WARRANTY CARD & INFORMATION	1			
40	BROWN DAVIS AUTOMOTIVE STICKER	1			


	STAFF MEMBERS INITIALS	DATE
KIT PACKED BY		
KIT CHECKED BY		




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PART NUMBER: THIA2 AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS

<p>WARNING:</p> <p>THIS FUEL TANK IS HEAVY. DO NOT ATTEMPT TO LIFT THIS FUEL TANK WITHOUT APPROPRIATE ASSISTANCE OR SERIOUS INJURY MAY RESULT</p>	
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<p>WARNING:</p> <p>ENSURE A FIRE EXTINGUISHER IS AVAILABLE WHILST WORKING NEAR EXPOSED FUEL</p>	
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- CHECK CONTENTS OF KIT BEFORE COMMENCING FITMENT
- DRAIN VEHICLE STANDARD FUEL TANK TO LOWEST LEVEL POSSIBLE BEFORE COMMENCING FITMENT
- BEFORE INSTALLATION THE BROWN DAVIS LONG RANGE TANK SHOULD BE WASHED OUT WITH THE SAME FUEL TYPE AS THE VEHICLE IT'S BEING FITTED TO
- VEHICLE SHOULD BE POSITIONED IN SAFE PLACE PRIOR TO COMMENCEMENT

Any questions or information required in relation to the installation of this fuel tank or content of the below instructions please do not hesitate to contact
Brown Davis head office.

Phone: +61 (3) 9762 8722
Email: info@browndavis.com.au

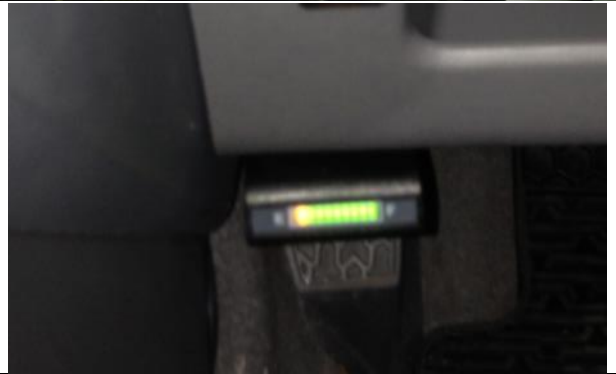
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WIRING FOR AUXILIARY TANK

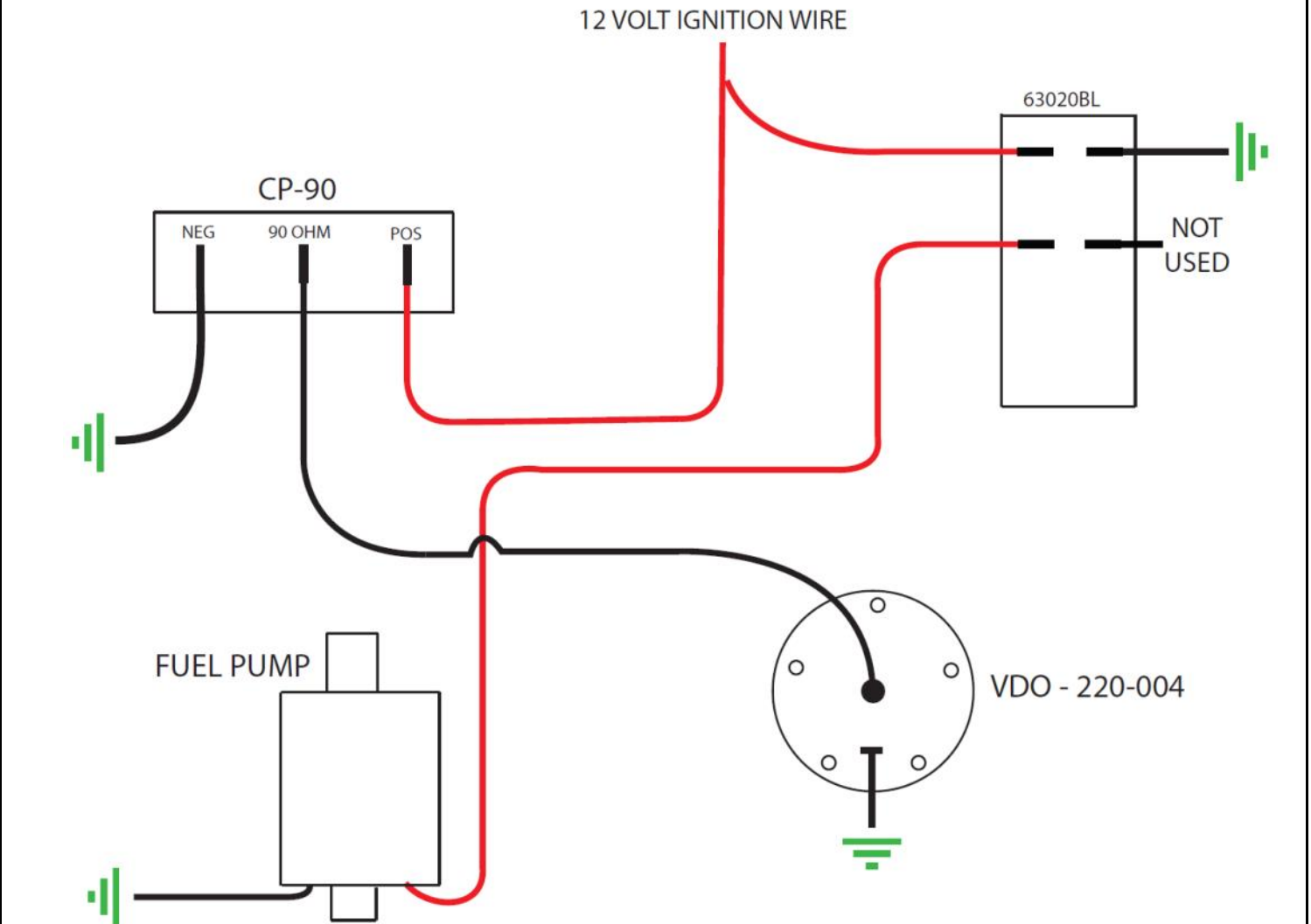
1. Fit the SWITCH – ROCKER - ON/OFF RED PILOT and the FUEL GAUGE – CP90 LED DASH UNIT to the dash.
- Run twin wire through an existing grommet in fire wall then down towards the proximity of where the auxiliary tank and pump will be fitted.
- ⇒ NOTE: switch and gauge can be located where ever space permits.



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2. Locate 12 volt ignition wire then follow wiring diagram.



3. Attach the **CRIMP FITTING – SPADE FEMALE 6mm - RED** to the wire so it can be plugged to the center plug on the **SENDER UNIT - VDO 220-004** (circled in photo) that is fitted to the tank as it is lifted into place.

- NOTE: The wire should be trimmed first to avoid excess wire.



4. The sender unit must also be earthed.

- Connect **CRIMP FITTING – SPADE FEMALE 4mm - RED** to the end of an off cut of wire.
- Connect the other side to a metal surface of the vehicle.
- The **CRIMP FITTING – SPADE FEMALE 4mm - RED** will need to be plug to the **SENDER UNIT - VDO 220-004** (circled in photo) as it is lifted into place.



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INSTALLATION OF AUXILIARY TANK

5. Using Teflon tape, thread sealant or the likes fit the BRASS FITTING - ELBOW - 1/2" x 1/4" BSP to the 1/4" socket that is level with the front top of the tank.
- Also fit the BRASS FITTING - ELBOW - 5/16" x 1/4" BSP to the 1/4" socket level with the bottom of the tank.

6. Begin to lift the tank into position under the driver side of the vehicle using a lifting device.
- Before tank is in final position connect the wires to the sender unit.

7. Using the M8 bolt, panel washer and spring washer fasten the higher bracket at the rear left hand side of tank into the captive in the chassis.
- Front left hand bracket needs a 10.5mm hole drill through chassis (no photo available).
 - Feed an M10 bolt on wire through hole and secure with panel washer and spring washer in place, double nut for extra security.



8. Drill two 10.5mm holes through the angled bracket against the side of the chassis.
- Feed two M10 bolts on wire through the holes.
 - Using the panel washers and spring washer, fasten the nuts into place.
 - Double nut for extra security.



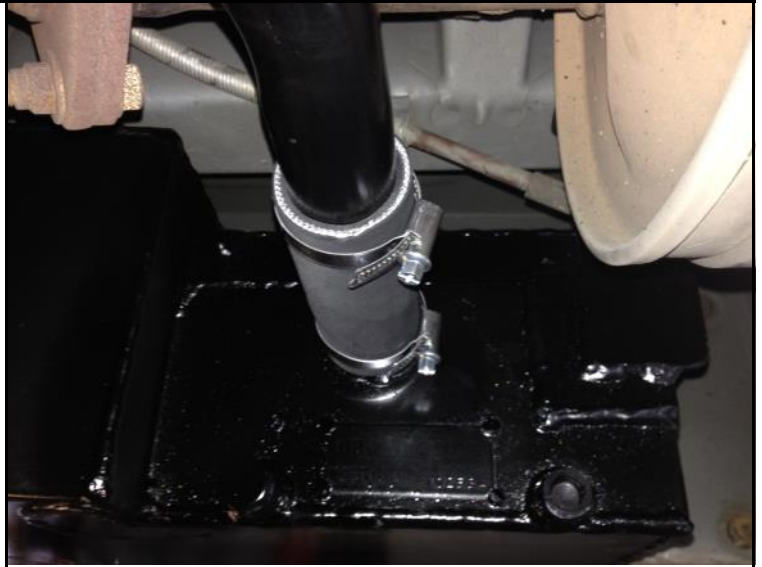
9. Drill a 10.5mm hole up through the side bracket.
- Drop a M10 bolt down through the hole.
 - Using the panel washers and spring washer, fasten the nuts into place.
 - Double nut for extra security.



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10. Fit the supplied FILLER TUBE to the auxiliary tanks filler using the supplied HOSE – FILLER – 35mm and hose clamps so it is running towards the standard tanks filler hose.
 - Mark a spot to fit the supplied Y PIECE - 35mm x 35mm x 35mm so the offset branch runs towards to FILLER TUBE.
 - Cut the hose then use the supplied hose clamps to secure into place.
 - Use another HOSE – FILLER – 35mm to fit the FILLER TUBE to the PIECE - 35mm x 35mm x 35mm.



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11. Cut the fast fill breather hose of the standard tank as high as possible (as close to the tank as possible).

 - Using hose clamps fit the supplied Y PIECE - 1/2" x 1/2" x 5/16".
 - Insure that the Y branch points the direction of the arrow in the photo.



11. Mount the FUEL PUMP – POSI-FLO to a suitable location.

 - Run the supplied HOSE – FUEL AND EMISSION - 8mm from the BRASS FITTING - ELBOW - 5/16" x 1/4" BSP to the pump connect the FUEL FILTER – INLINE – 8mm in-between.
 - Run the remaining hose off the other side of the pump to the Y PIECE - 1/2" x 1/2" x 5/16" fitted in previous step.
 - Fuel system should run as below,

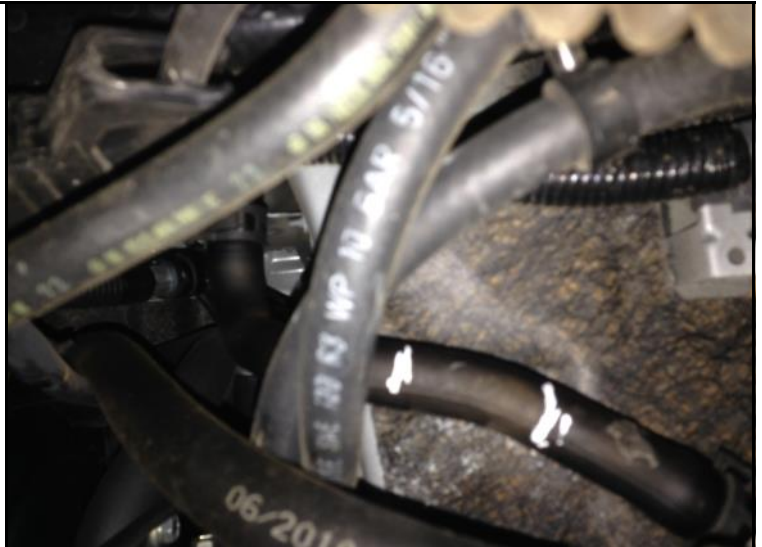
BRASS FITTING - ELBOW - 5/16" x 1/4" BSP >>> FUEL FILTER – INLINE – 8mm >>> FUEL PUMP – POSI-FLO >>> STANDARD TANK FAST SILL BREATHER LINE (at tank end).



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12. Cut the fast fill breathe line high up near the fill point on vehicle.
- Fit the TEE PIECE - 1/2" x 1/2" x 1/2" to the breather line using hose clamps.
 - Run the HOSE – FUEL AND EMISSION - 12.5mm from the BRASS FITTING - ELBOW - 1/2" x 1/4" BSP on the top of the tank to the TEE PIECE - 1/2" x 1/2" x 1/2" . Secure with hose clamps.
 - Fast fill hose should run uphill from auxiliary tank to the main tanks fast fill breather line.



13. Sit the HEAT SHIELD over the tank filler as shown in photo.
- Secure using hose clamps.



14. Double check all fuel line clamps and security of fuel lines. Fill tank and double check all fuel system for leaks. Road test and check for rattlers & squeaks.