

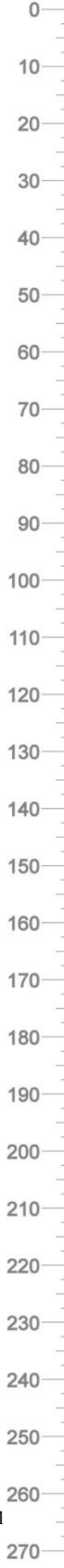
Brown Davis Automotive Pty. Ltd.
 ABN: 72 657 573 544

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**FORD RANGER 2011-PRESENT - ALL MODELS – 125lt AUXILIARY TANK
 AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS
 PART NUMBER: FRPX1**

| Item # | Description | Quantity | Part No. | P | C |
|--------|---|------------|----------|---|---|
| 1 | TANK—REPLACEMENT | 1 | FRPX1 | - | - |
| 2 | DRAIN PLUG—MAGNETIC—M14 (FITTED TO THE TANK) | 1 | | - | - |
| 3 | HOSE – FUEL AND EMISSION - 8mm | 1.2m | | | |
| 4 | HOSE – HORIZON - 12.5mm | 300mm | | | |
| 5 | HOSE – HORIZON - 16mm | 1.2m | | | |
| 6 | HOSE – FILLER – 38mm | 130mm (x2) | | | |
| 7 | HOSE CLAMP – STAINLESS – 8-16mm | 6 | | | |
| 8 | HOSE CLAMP – STAINLESS – 12-22mm | 2 | | | |
| 9 | HOSE CLAMP – STAINLESS – 16-27mm | 2 | | | |
| 10 | HOSE CLAMP – STAINLESS – 32-50mm | 4 | | | |
| 11 | FUEL PICK UP – 5/16" x 1/4" BSP ELBOW *CUT 438mm FROM THREAD* | 1 | | | |
| 12 | BRASS FITTING - TAIL BARB - 5/8" x 1/4" BSP | 1 | | | |
| 13 | BRASS FITTING - TAIL BARB - 1/2" x 1/4" BSP | 1 | | | |
| 14 | BRASS FITTING - ELBOW - 1/2" x 1/4" BSP | 1 | | | |
| 15 | BRASS FITTING - ELBOW - 1/8" x 5/16" BSP | 1 | | | |
| 16 | BRASS FITTING - TAIL BARB - 1/8" x 5/16" BSP | 1 | | | |
| 17 | CABLE TIE - 8" BLACK | 5 | | | |
| 18 | Y-PIECE – 16mm x 16mm x 8mm | 1 | | | |
| 19 | FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT | 1 | | | |
| 20 | BUZZER – PEEL – CP 5 | 1 | | | |
| 21 | WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG | 5m | | | |
| 22 | CRIMP FITTING – SPADE FEMALE 6mm - INSULATED - RED | 1 | | | |
| 23 | CRIMP FITTING – SPADE FEMALE 4mm - RED | 1 | | | |
| 24 | CRIMP FITTING - RING 5MM - RED | 1 | | | |
| 25 | CRIMP FITTING – JOINER 3mm - RED | 1 | | | |
| 26 | SCOTCH LOCK | 1 | | | |
| 27 | SENDER UNIT - VDO 220-004—FITTED TO TANK | 1 | | | |
| 28 | FUEL PUMP – POSI-FLO | 1 | | | |
| 29 | FUEL FILTER – INLINE – 8mm | 1 | | | |
| 30 | SCREW - SELF TAPPER | 2 | | | |
| 31 | SET SCREW – PAN HEAD – M4 x 10mm – PLATED 8.8 | 5 | | | |
| 32 | WASHER – SPRING PLATED – M4 | 5 | | | |

KIT CONTINUES ON NEXT PAGE





LONG RANGE FUEL TANKS
FRPXA1

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| Item # | Description | Quantity | Part No. | P | C |
|--------|---|----------|--------------|---|---|
| 33 | BOLT – HEX – M10 x 65mm – PLATED 8.8 | 6 | | | |
| 34 | BOLT – HEX – M10 x 100mm – PLATED 8.8 | 4 | | | |
| 35 | SET SCREW – HEX – M10 x 30mm – ON WIRE | 4 | | | |
| 36 | WASHER – SPRING PLATED – M10 | 14 | | | |
| 37 | WASHER – FLAT PLATED – M10 | 4 | | | |
| 38 | WASHER – PANEL PLATED – M10 | 14 | | | |
| 39 | NUT- PLATED – M10 | 20 | | | |
| 40 | SPACER PLATE - 10mm - 60mm x 40mm | 2 | SP-10-040060 | | |
| 41 | CRUSH TUBE - 16mm - 78mm LONG | 4 | | | |
| 42 | TWIN FILLER <i>*WITH SCREW CAP THREAD GLUED IN*</i> | 1 | TF-FRPXA1 | | |
| 43 | FILLER TUBE | 1 | FT-FRPXA1 | | |
| 44 | CROSSMEMBER - FRONT | 1 | CM-FRPXA1-1 | | |
| 45 | CROSSMEMBER - REAR | 1 | CM-FRPXA1-2 | | |
| 46 | CROSSMEMBER BACKUP PLATES | 2 | | | |
| 47 | WARRANTY CARD & INFORMATION | 1 | | | |
| 48 | BROWN DAVIS AUTOMOTIVE STICKER | 1 | | | |

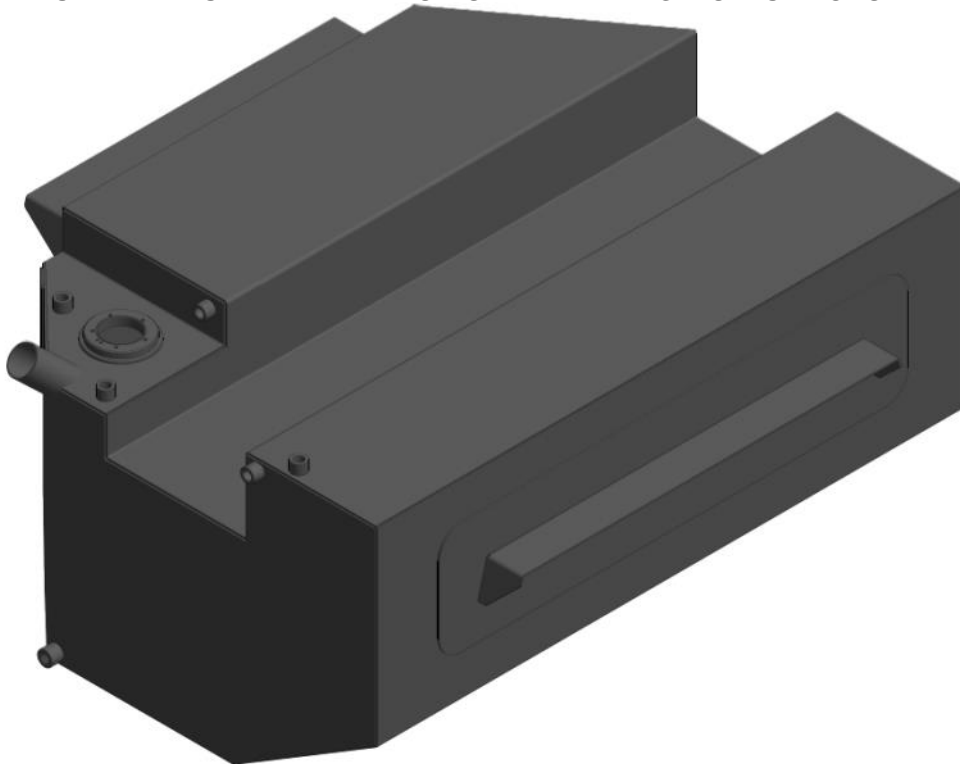
| | STAFF MEMBERS INITIALS | DATE |
|-----------------------|------------------------|------|
| KIT PACKED BY | | |
| KIT CHECKED BY | | |



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PART NUMBER: FRPX1 AUXILIARY FUEL TANK PARTS LIST AND FITTING INSTRUCTIONS



WARNING:

THIS FUEL TANK IS HEAVY. DO NOT ATTEMPT TO LIFT THIS FUEL TANK WITHOUT APPROPRIATE ASSISTANCE OR SERIOUS INJURY MAY RESULT



WARNING:

ENSURE A FIRE EXTINGUISHER IS AVAILABLE WHILST WORKING NEAR EXPOSED FUEL



- CHECK CONTENTS OF KIT BEFORE COMMENCING FITMENT
- DRAIN VEHICLE 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

Any questions or information required in relation to the below instructions please do not hesitate to contact Brown Davis head office or one of our distributors.

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

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1. Lower and remove spare wheel from the rear cavity of the vehicle.
 - Remove wheel winder mechanism.
 - Remove the left hand rear inner wheel arch guard to gain access to the filler assembly.



2. Disconnect and remove the standard filler assembly.



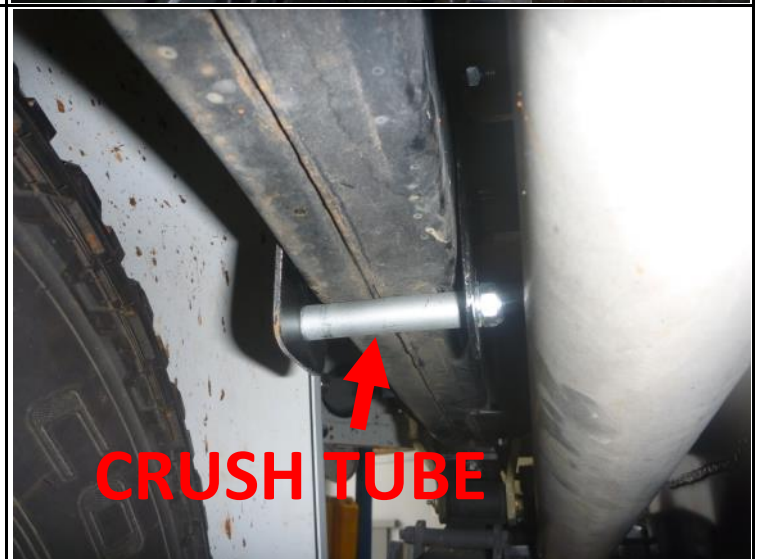
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3. Position rear crossmember between the chassis at the very rear of the tank, line the crossmember holes up with the holes in the chassis rail.
 - Bolt in place ensuring the spacer plate is used on the front right hand side hole to allow a flush fastening.



4. Using the crossmember backup plates and the crush tubes fit the front crossmember to the chassis rail.
 - Position it 615mm from the rear crossmember.



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5. Locate somewhere on the dash to mount the **FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT.**

- Drill a 20mm (approx.) to install.



6. Locate 12 volt ignition wire

7. Connect the single red wire from the **BUZZER – PEEL – CP 5** to the 12 volt ignition wire using the supplied SCOTCH LOCK or by soldering.



8. Stick the **BUZZER – PEEL – CP 5** behind the driver side kick panel or dash.

- Earth the ring (circled in photo) by fastening it to a metal surface.



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9. Connect the plugs from the **FUEL GUAGE/SWITCH – CP 309GS LED DASH UNIT** to the **BUZZER – PEEL – CP 5**.

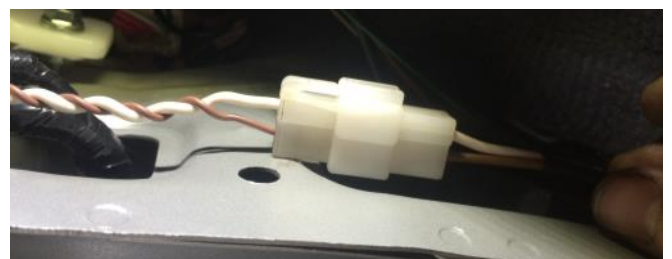


10. Mount the **FUEL PUMP – POSI-FLO** to the front cross-member on the filler side.
- Connect the black wire to the crossmember to earth the pump.





11. Run the **WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG** from the dash to the tank location, ensuring the wire is safe. Feed the wire through an existing loom or grommet.
- The end with the plug should be in the vehicles cab at the dash.
 - Brown Davis recommends to follow existing wiring where possible or other wise, follow fuel lines or air conditioning lines.

12. Connect the white plugs from both the **BUZZER – PEEL – CP 5** and the **WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG**.



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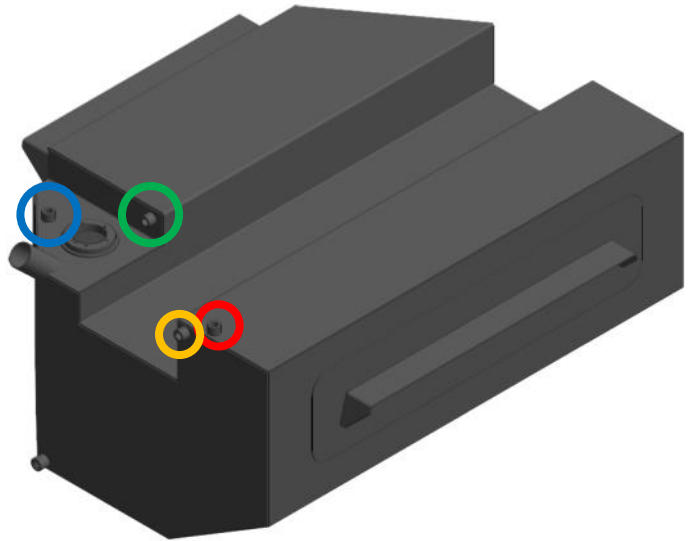
| | |
|---|--|
| <p>14. Connect the CRIMP FITTING – JOINER 3mm - RED to the red wire on the FUEL PUMP – POSI-FLO.</p> <ul style="list-style-type: none"> Join the white wire to the opposite end of the CRIMP FITTING – JOINER 3mm - RED. NOTE: The white wire should be trimmed first to avoid excess wire. Keep off cut wire for later step. | |
| <p>15. Attach the CRIMP FITTING – SPADE FEMALE 6mm - INSULATED - RED to the brown 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 once the tank is in position, see step 20.</p> <ul style="list-style-type: none"> NOTE: The brown wire should be trimmed first to avoid excess wire. |  |
| <p>16. The sender unit must also be earthed.</p> <ul style="list-style-type: none"> Using the white off cut wire connect the CRIMP FITTING - RING 5MM - RED to one end and the CRIMP FITTING – SPADE FEMALE 4mm - RED to the other. Plug the CRIMP FITTING – SPADE FEMALE 4mm - RED to the SENDER UNIT - VDO 220-004 (circled in photo). Connect the CRIMP FITTING - RING 5MM - RED to the chassis. |  |
| <p>17. Connect the white plugs from both the BUZZER – PEEL – CP 5 and the WIRE – TWIN CORE – 3.0mm – BROWN/WHITE—WITH PLUG together.</p> | |

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18. Install brass fittings with thread sealant, teflon tape or the likes.

- **FUEL PICK UP – 5/16" x 1/4" BSP ELBOW** Circled in blue
- **BRASS FITTING-TAIL BARB- 5/8" x 1/4" BSP** Circled in red
- **BRASS FITTING-TAIL BARB- 1/2" x 1/4" BSP** Circled in green
- **BRASS FITTING-ELBOW- 1/2" x 1/4" BSP** Circled in green



19. Connect the supplied **HOSE – HORIZON - 16mm** to the **BRASS FITTING-TAIL BARB- 5/8" x 1/4" BSP** using a hose clamp.

- Connect the supplied **HOSE – HORIZON - 12.5mm** to the **BRASS FITTING-TAIL BARB- 1/2" x 1/4" BSP** using a hose clamp.

20. Using a lifting device, jack the tank into place.

- Before tank is in final position, plug the wires to the sender unit as mentioned in step 15 and 16.
- Feed the 16mm hose of the left hand side chassis rail.
- Feed the 12.5mm hose over the chassis crossmember that runs through the channel of the tank, then fit it to the **BRASS FITTING-ELBOW- 1/2" x 1/4" BSP** using a hose clamp.

21. Drill through the front and rear crossmembers then use the supplied hardware to fasten the tank.

- Double nut bolts for extra security.



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22. Cut the standard fast-fill breather hose and fit the supplied **Y-PIECE – 16mm x 16mm x 8mm** using hose clamps.



23. Use the **HOSE – FUEL AND EMISSION - 8mm**, cutting to size as you go, connect the **FUEL PICK UP – 5/16" x 1/4" BSP ELBOW** to the **FUEL FILTER – INLINE – 8mm**.

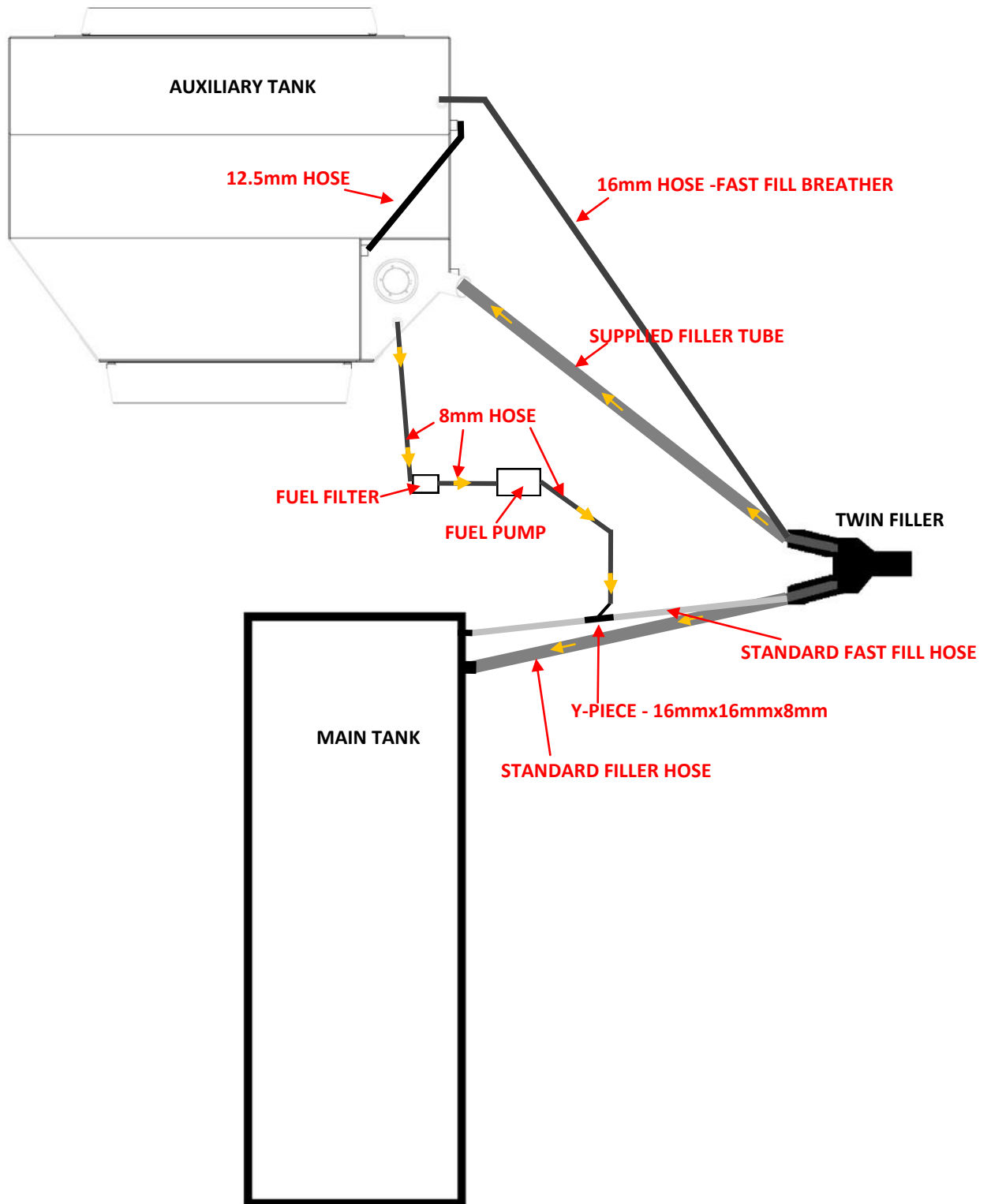
- Then connect the **FUEL FILTER – INLINE – 8mm** to the **FUEL PUMP – POSI-FLO**.
- Then connect the **PUMP – POSI-FLO** to the **Y-PIECE – 16mm x 16mm x 8mm**.
- See the fuel system diagram on next page.



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FUEL SYSTEM DIAGRAM-



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24. Fit the **TWIN FILLER** to where the standard filler assembly was by pushing the screw cap end through the rubber grommet then fasten the bracket on the **TWIN FILLER** to the vehicle.
- Fit the standard filler tube rubber and the fast fill hose to the **TWIN FILLER**.
 - Fit the supplied **FILLER TUBE** from the **TWIN FILLER** to the filler on the auxiliary tank using the supplied **HOSE – FILLER – 38mm**.
 - Connect the **HOSE – HORIZON - 16mm** to the **TWIN FILLER** using a hose clamp.



25. Double check all fuel line clamps and ensure the fuel lines are secure. Road test and check for rattlers & squeaks.