

GTank - Auxiliary Fuel Tank

2007 – Current Suzuki Lehman Jackal

Installation Instructions:

Summary of Installation Steps:

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| <ol style="list-style-type: none"> 1. Install Tools Required 2. Removal of Body Parts for Installation 3. Attaching Fuel Hoses to GTank 4. Securing GTank 5. Installing Fuel Pump 6. Installing Timer Circuit | <ol style="list-style-type: none"> 7. Installing Toggle Switch 8. Installing 'L' Connector 9. Installing Front 'Y' Connector to Existing Vent 10. Connecting All Hoses 11. Testing Operation 12. Installing All Removed Parts |
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1) Install Tools Required:

- Small metric Allen wrenches.
- 10-14mm sockets and box wrenches.
- 22mm box wrench from your Suzuki tool kit.
- Phillips and Slot Screw Drivers.
- Needle Nose Pliers.
- Drill motor with 1/2" metal drill bit.

2) Removal of Body Parts for Installation:

- Both seats.
- Left passenger foot pad.
- Left passenger panel behind foot pad.
- Center panel directly under passenger seat.
- Left decorative stock fuel tank cover.
- Left side chrome keyed cover below passenger foot pad.
- Center speedometer console.
- Both 'fake' tank covers adjacent to speedometer console.
- Headlight glass and chrome attachment ring.



3) Attaching Fuel Hoses to GTank: *(Stub outs are located at top/front of GTank)*

- 1/2" x 49" Hose attaches to large Center Stub Out.
- 3/8" x 37-1/2" Hose attaches to Left Stub Out.
- 3/8" x 24" Hose attaches to Right Stub Out.

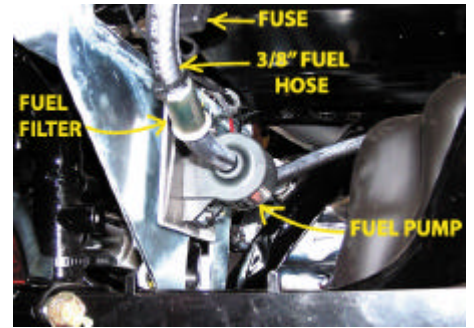
4) Securing GTank: *(Lifting Trike is unnecessary, but by putting the rear axel on jack stands and removing the rear wheels, access will be greatly improved.)*

- Place Front Angled Support Bar on top of existing frame rails within a couple inches of differential with open side facing the rear.
- Slide 'U' bolts up from underneath of existing frame rails through holes provided in Front Angled Support Bar and loosely secure with washers and Lock Nuts provided.
- If your GTank will not fit easily between the differential and the front cross bar because of manufacturing differences with your Jackal, you will need to attach the Optional 12" Angled Support Bar to the rear of the GTank so the vertical surface of the cross bar lines up with the vertical surface of the rear surface of the GTank *(your speed nut won't be utilized with this change, but the 4 larger stainless steel bolts, nuts and lock washers will.)*
- Lift the GTank into place and either install the std technique utilizing the speed nut attached to the GTank attachment point or drill two holes in the vertical surface of the rear Jackal cross bar for a snug fitment of your GTank and the optional 12" Angled Support Bar.
- Attach the front of the GTank to the Front Support Bar with Bolts provided.
- Align GTank between existing frame members centered left to right between frame rail and exhaust. Then check and/or re-drill single alignment hole in cross bar or two alignment holes in vertical surface of same per optional rear attachment, then tighten all mounting bolts securely in place.



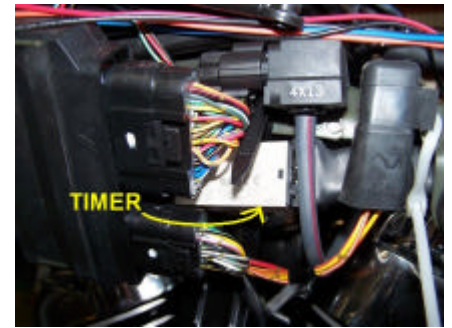
5) Installing Fuel Pump: (Use stainless clamps provided for all hose connections)

- Attach 3" Long Fuel Hose to inlet side of Fuel Pump (Note the arrow on fuel pump for fuel flow direction).
- Route 37-1/2" GTank to filter hose under flat bar support, around left side of fuel tank, to inlet of fuel filter. Then, attach fuel filter to the open end of 3" fuel hose from fuel pump, making sure the filter arrow points toward the fuel pump.
- Attach 25" Fuel Hose to outlet side of Fuel Pump.
- Attach Fuel Pump to Mounting Plate so inlet side is on the left and frame mounting holes on right. Install bolts through aluminum plate, through the pump, and then add washers and locknuts to pump side and tighten.
- Remove nuts from center cross member bolts, keeping bolts protruding through plate.
- Slide Fuel Pump Mounting Plate (with Fuel Pump attached) over protruding bolts so inlet is on the left and re-secure existing lock nuts and Pump in place.



6) Installing Timer Circuit: (see electrical diagram on page 5 for additional details)

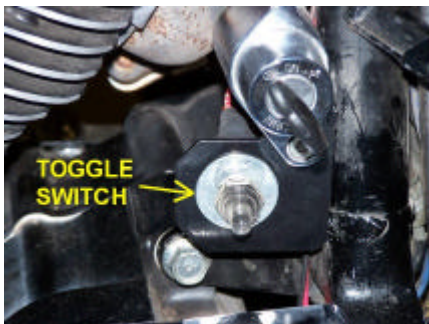
- Install timer onto wiring harness. (Do Not Force, it plugs in one way only). Tape connection between timer and wiring harness with electrical tape.
- **DO NOT adjust timer dial or move 'Dip Switches' or system will not run properly.**
- Slip Timer Unit into Timer Condom and mount under upper left frame rail, securing with a Zip Tie or two.
- Power wires (black & blue) route to inside of head light assembly and plug into 'T' connector as shown on electrical diagram drawing. This 'T' connector is protected by a 10A fuse in the main fuse block (labeled 'P-Source', this 10A fuse may need to be increased if you have other accessories protected by it also)



- Route wires so the majority of connections are adjacent to left side of fuel tray under frame rail. Avoid chaffing, pinching or exposing wires to heat or moving parts. Make sure the in-line (5A) fuse is accessible under left side chrome keyed cover. This will allow for easy access.
- Zip tie the fuse and all wires in place and away from potential harm.

7) Installing Toggle Switch:

- Secure Toggle Switch to Powder Coated Switch Plate as shown, tighten nut then screw on rubber boot to protect toggle.
- Slide Heat Shrink Boot over the three attachment wires provided. Attach all three wires to toggle switch, red on top, black in middle, and brown on bottom.



- Slide Heat Shrink over back of toggle switch to switch plate, and gently apply heat until heat shrink is snug over all parts.
- Unbolt ignition switch, slide Switch Plate between ignition switch and frame; re-secure ignition switch and toggle assembly in place.



8) Installing 'L' Connector:

- Measure and mark center on underside of stock rubber filler hose (*Inside of curve, front to back, side to side*). Drill a 1/2" hole using a metal type drill bit (**do not widen or ream out the hole in any way and definitely do not drill through both walls of the filler hose!**).

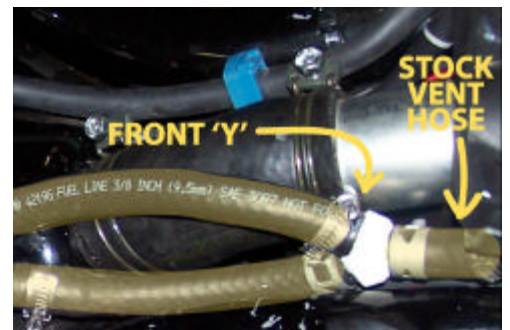


- Attach 'L' connector making sure to place one washer on each side of the filler hose before tightening. 'L' Connector should be facing out the left side of the trike with a slight rearward direction (*do not re-install filler hose until you have attached the 1/2" fill hose to the 'L' connector in later step*).
- A good tool to tighten inner Nylon Nut is the stock 22mm wrench in Suzuki Tool Kit. (*Tighten very snugly, but don't strip nut, PLEASE!*)



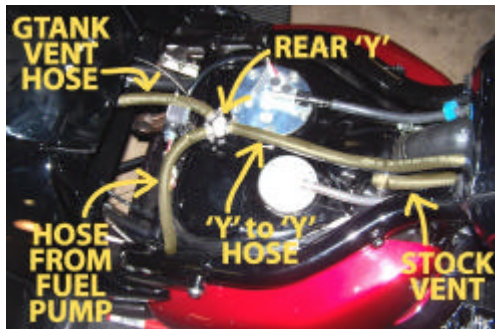
9) Installing Front 'Y' Connector to Existing Vent: (see picture)

- Remove existing vent hose adjacent to right of existing fill tray.
- Attach 2" vent hose to bottom leg of 'Y' connector.
- Attach 4-3/4" vent hose to one of two top legs of 'Y' connector.
- Attach other end of both of these vent hoses to existing stub outs, with 2" hose attaching to fuel tray and 4-3/4" hose to stock tank.

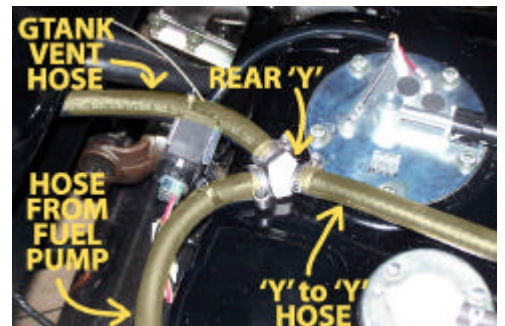


10) Connecting All Hoses: (see picture for hose routing specifics)

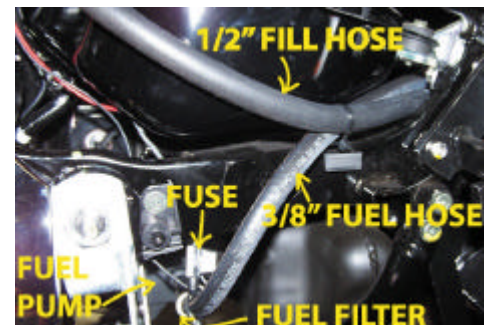
- Attach 17-1/4" hose to open end of Front 'Y' connector to bottom leg of Rear 'Y' connector.



- Connect 25" hose from fuel pump outlet to Rear 'Y' connector, keeping hose inside of right lower frame rail, then up between main tank and intersection of right rear upper frame rail then inward to Rear 'Y' and connect.



- Attach 8" hose to remaining leg of Rear 'Y' Connector. Attach other end of this hose to one side of 'Check Valve' (*directional arrow on Check Valve should be pointing towards this hose and front of trike*).
- Attach open end of 24" hose from GTank vent, to open end of check valve (*secure this hose to upper frame rail under rear seat*).
- Route 1/2" filler hose from GTank under flat bar support, around lower left side of stock tank, up between left upper frame rail and stock tank to open end of 'L' connector. Secure 1/2" hose to 'L' connector before securing large fill hose back onto stock fuel tank and fuel tray.
- Zip tie all hoses snugly in place without pinching hoses, making sure they do not interfere with any moving or hot parts.



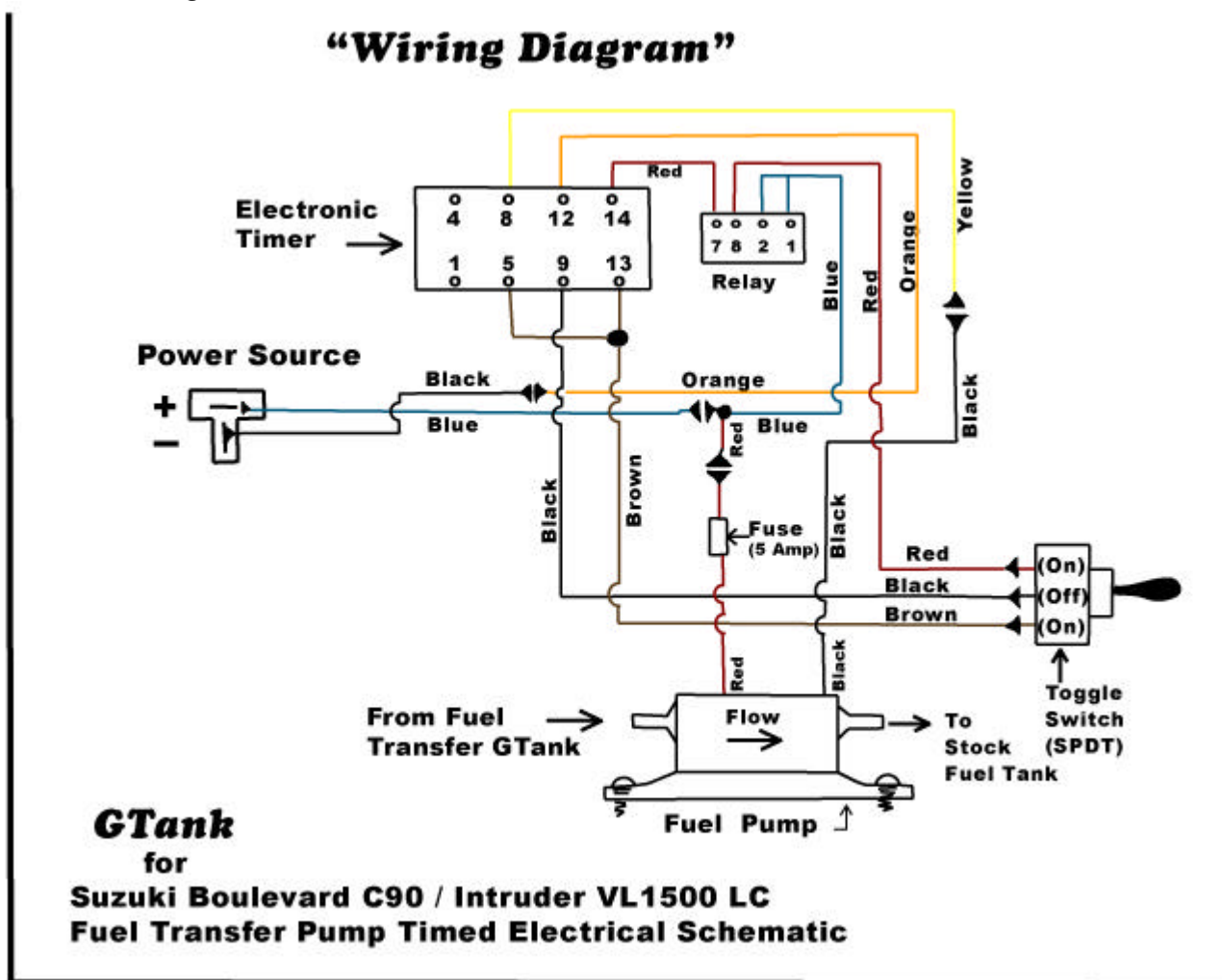
11) Testing Operation:

- Make sure wire clamps are completely on Filler Neck Hose and the Filler Neck Hose is securely in place before tightening clamps.
- With all hoses connected securely, the wiring zip tied in place, and battery reconnected, make this simple test to verify all is attached and working. Turn ignition key to on position then flip the toggle switch to the 'up' position for 2-3 seconds only. You should hear the fuel pump make a very loud rattling noise (like rocks in a tin can). Immediately push down on the toggle switch (which is your emergency shut off switch) and all will shut off. Turn your bike off and proceed with putting your trike back together.

12) Installing All Removed Parts: (In this order)

- Left decorative cover to stock tank.
- Left side chrome key lock cover.
- Center body panel under rear seat.
- Left side body panel under left passenger foot rest.
- Left side passenger rubber protective foot pad.
- Left and right side fake tank covers.
- Speedometer console.
- Front and rear seats.

Electrical Wire Routing:



Power Source: (Switched):

- Connect to 'T' Shape connector inside back of Headlight bezel.
- Black (-) is to bottom of 'T' and Blue(+) wire to top of 'T'. (If this connection is being used you can splice, solder and tape to it or find another Switched power source as this is the official Suzuki source)

Fuel Pump Wires:

- Red connects to Red already Pig-Tailed into Blue.
- Black connects to Yellow.

Electronic Timer Wires:

- Blue (tied to the Red pig-tail) connects to Blue behind Headlight.
- Red connects to top terminal of toggle switch.
- Black (tied to Orange) connects to center of Toggle Switch.
- Brown connects to bottom terminal of Toggle Switch.
- Orange (tied to Black from Timer and Black to Toggle) connects to Black to headlight.
- Yellow connects to Black from Fuel Pump.

Note: Make sure you have the Toggle Switch mounted in place with the Red Wire on top or you'll be switching it backwards during operation.

***** Special Notes:**

1. Normal operation consists of running your main tank down to one bar before activating the Fuel Pump by pushing toggle switch up (*While riding*). The fuel pump will run for approximately five minutes then automatically shut off. During this time the fuel from your GTank will have transferred into the Main Tank, and your fuel gauge will then read full again.
2. **Do not turn on the fuel pump when both tanks are completely full**, as pressure could build and cause spillage. If for any reason you accidentally switch the Toggle Switch to the 'On' position (*UP*) prior to it being required there is a safety feature. Push the toggle switch down (*OFF*) which will disconnect the circuit and shut off all power to the pump, resetting the timer back to 5 minutes.

Legal Disclaimer

As motorcycle fuel tanks are not regulated by the D.O.T., there is no approval requirement. The GTank is sold as an off-road or racing component, and the buyer accepts any and all responsibility for knowledge and compliance with local and state laws, codes or ordinances regarding addition of a secondary fuel cell or aftermarket exhaust system to a motor vehicle, and agrees to hold harmless GMan Industries, Ltd and it's employees from any loss incurred and/or litigation resulting from use/misuse, injury, death, including lack of compliance with said laws, codes and/or ordinances resulting from purchase, installation, and use of the GTank or related products.

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