

GTank - Auxiliary Fuel Tank

1998 – 2004 Suzuki VL1500 LC Intruder

UPGRADE Installation Instructions:

GTank Install Tool List:

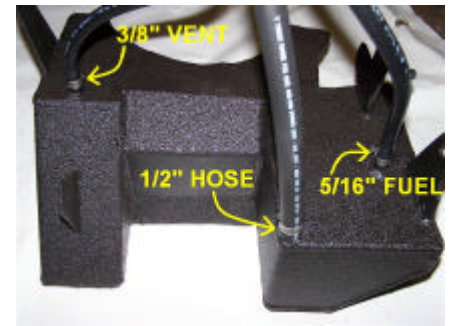
- 4 mm Allen Wrench
- 5 mm Allen Wrench
- 6 mm Allen Wrench
- 7 mm Allen Wrench
- Drill Motor w/ 1/2" Drill Bit (to make hole in rubber fill hose)
- 14 mm Box Wrench
- 10 mm Socket
- 22 mm Box Wrench (in stock Suzuki tool kit)
- Phillips Screw Driver
- Slot Screw Driver
- Needle Nose Pliers (longer the better)
- Razor Knife

Remove the following prior to GTank Installation:

- Rider Seat
- Center Instrument Console & Left Fake Tank Cover
- Both Stock Gas Tank Side Covers
- Right Passenger Peg Bracket from Frame
- Chrome Tool Box Cover - Unlock with key, and pull cover off.
- Tool/Storage Box
- Left Rear Lower Frame Rail (Wraps around rear & Bottom sides of old tool box area)

Install Fuel Hoses onto each GTank Stub Out:

- 1/2" x 18 3/4" Hose onto large Fill Stub on front corner. (*large clamp*) (*Make sure the hose curves towards the inside of the bike*)
- 3/8" x 12" Hose onto Vent Stub on right outside edge. (*large clamp*) (*Make sure hose curves towards the back of bike*)
- 5/16" x 9" Hose onto remaining Fuel Stub on middle left side of tank. (*small clamp*) (*Make sure hose curves towards front of bike*)



Mount Fuel Pump: (Small Clamps)

- **Remove Red Caps on ends of pump prior to connecting hoses.**
- Install two remaining 5/16" hoses onto Fuel Pump and clamp down snugly (*Don't strip clamps*). Long (5/16" x 22 1/4") hose on outlet/exhaust side (*See arrow on pump housing*), Shorter Hose (5/16" x 10 1/2") on inlet side.
- Slide Stainless Steel Fuel Pump Clamp onto frame (*long side on top*) in front of mono-shock lower bolt; **Tap firmly into place**. Set Fuel Pump on Clamp (*Face flow arrow toward right of bike*); finger tighten SS Allen Bolts (*Install shorter bolt on front side first, by accessing over drive shaft*), and then tighten both with Wrench. (*Loctite is advisable as this clamp is not reachable after GTank is in place.*)



- Route Inlet hose over driveshaft to side cover area.
- Route Outlet Hose (*exhaust side*) over side of GTank towards rear tire.
- Run wires up right side of bike for later connection.

Place GTank under bike from left side (*Remove lower left frame bar first, Bike should be on side stand during install.*)

Position Hoses through bike as follows:

- Vent Hose (3/8") between Frame and Swing Arm, route towards rear of bike.
- Fuel Hose (5/16") between Driveshaft and Frame, route balance away from bike.
- Fill Hose (1/2") between Shock and Driveshaft, route balance away from bike.

Lift GTank into place and loosely secure 3 of the 4 bolts: (Don't install rear foot peg bolt for now)

The 4 bolts: Top two bolts of storage box (for left side); Lower passenger peg bolt and front stock exhaust bolt (for right side).

Final Connections for Each Hose are as follows:

Fill Hose Connection (1/2"):

- Measure and mark center (*side-to-side, end-to-end*) of underside of Stock Rubber Filler Hose. Drill a 1/2" hole using metal drill bit (*Don't widen hole out, don't drill through both walls of hose, they are rarely in stock*).

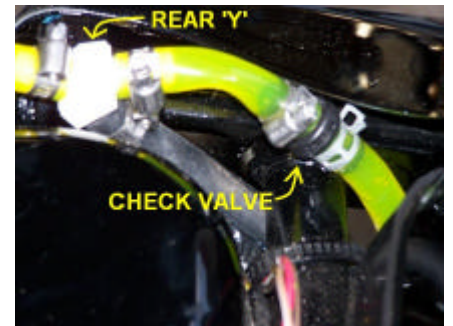


- Attach 'L' Connector making sure you have one washer on each side and the 'L' connector is facing left side of bike at a slight backwards angle. A good tool to tighten inner Nylon Nut is the stock 22mm wrench in Suzuki Tool Kit. (*Tighten very snugly, but don't strip nut, PLEASE!*)
- Attach 1/2" x 18 3/4" hose to 'L' Connector and re-install large filler hose tight to stock tank.



Vent Hose from GTank (Large Clamps) –

- Route Vent hose rearward on inside of square frame rail and around rear of round frame rail which lies in front of rear tire, up under the seat. Connect to 'Check Valve' (*Note direction of flow on check valve and point it away from GTank towards the new 'Y'*). Attach 3/8" x 3 1/2" Vent hose to other end of Check Valve.
- Attach other end of 3/8" x 3 1/2" hose to top leg of the front 'Y' connector.

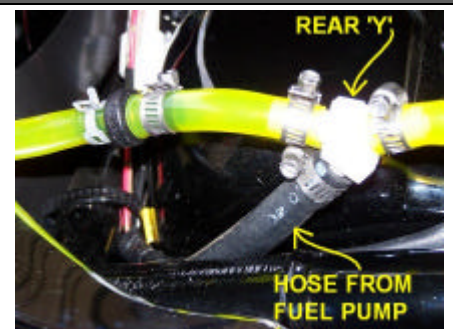


Fuel Hose (5/16" x 10 1/2") (Small Clamps) –

- Connect Fuel Filter (*Large End towards Fuel Pump, See arrow on Filter*) to line from GTank, connect other end of Filter to line coming over driveshaft from Fuel Pump (10 1/2"). Filter should rest in area above driveshaft and easy to reach behind side cover for servicing later if necessary.

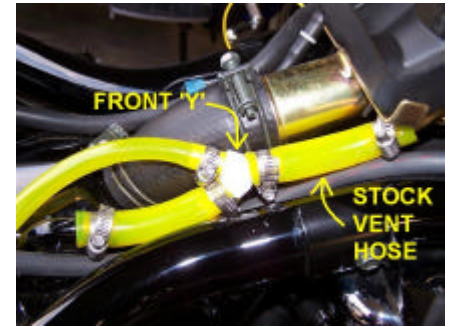
Fuel Pump to Rear 'Y' Connection (Small Clamps) –

- Route Hose (5/16" x 22 1/4") from right side of Fuel Pump over right side of GTank follow vent hose routing except for routing it in front of round frame rail instead of rear side attach to other 'Leg' of rear 'Y'.



Rear 'Y' to Front (Vent) 'Y' (Large Clamp) –

- Route Vent Hose (3/8" x 13 1/2") from Rear 'Y' to Front 'Y' (This 'Y' sits upside down). Cut 'stock tank' end of rubber vent hose approximately 3 1/2" long. Insert new upside down 'Y' to this hose (slide stock vent hose further onto vent pipe to make room for 'Y').



- Attach other half of stock vent hose to front end of this 'Y'. All Venting & Fuel Hose Lines are now complete!

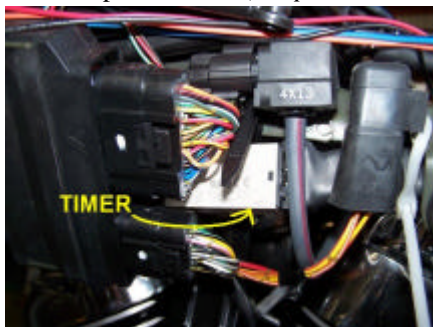
Electrical Connections:

- 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

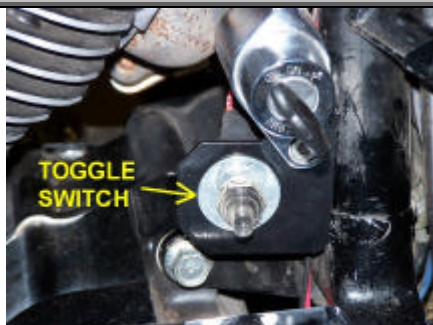
- Slip Timer into Timer Condom and Mount under upper left frame rail with a Zip Tie or two. (see picture below)



- Connect wires as shown on electrical diagram (on next page). Route in available space and avoid chafing or pinching wires. (Note: Fuse holder to be routed on right side of bike for easy access)

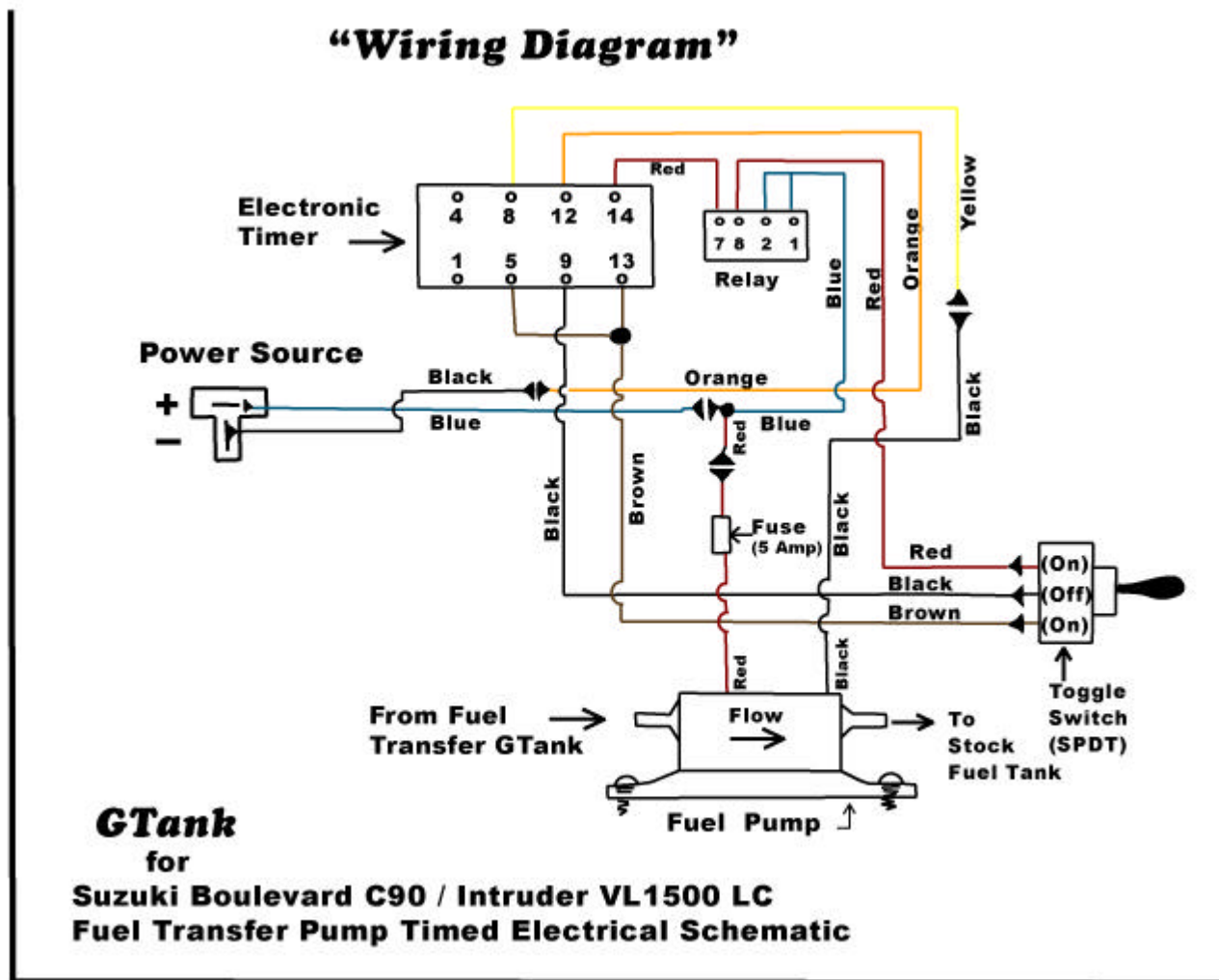
- Power wires (Blue & Black) route to inside headlight assembly and plug into 'T' connector as shown on drawing, if connector is being used, tap into wires, solder and tape properly. The 'T' connection is protected by a 10A fuse in the main fuse block (Labeled 'P-Source', 10A Fuse may need to be increased to a 15A depending on your initial power draw). The GTank system is also protected by a 5amp in line fuse between the Fuel Pump and Toggle Switch.

- Secure Toggle Switch to Black Powder Coated Switch Plate. Slide Shrink Wrap cover over the three wires and attach wires to back of toggle switch (Red Wire is on top). Slide Heat Shrink over connections and against back of Switch plate. Gently heat up Heat Shrink until snug against connectors and back of toggle switch and switch plate. (Do not shrink it so it pulls off back of toggle switch).
- Unbolt the ignition switch (leaving all wires attached)
- Sandwich the toggle switch plate's mounting tab between the ignition switch housing and the frame support, and then re-install the ignition switch bolt.



- Test System by turning on Key and Clicking toggle switch in the up position. The Fuel Pump should run (loudly as there is no fuel to pump).
- Immediately switch pump off (down) and it will turn off. Turn Key off and finish assembling your cruiser.
- If it does not work, Recheck all connections and try again.

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.

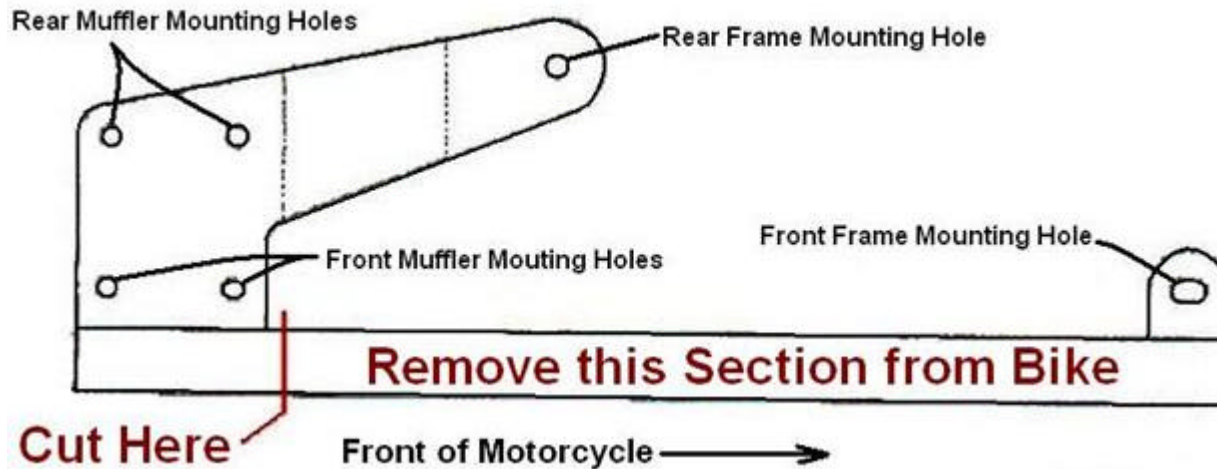
Note: Make sure you have the Toggle Switch mounted in place with the Red Wire on top or you'll be switching it backwards during operation.

V&H Pro-Pipe / Long Shot Mounting Bar Modifications for the GTank

Vance & Hines Long Shot and Pro-Pipe Owners Please Note: You will have to modify the Vance & Hines Muffler Hanger bracket to allow room for the GTank installation. This will not weaken your exhaust system, and the procedure has been road tested thoroughly. This mod is part of my '02 LC and works well with no issues whatsoever.

- Lower Round Mounting Bar that attaches to the Muffler Mounting Bracket needs to be removed.

- To remove Lower Round Mounting Bar use a hack saw or other metal cutting tool and measure approximately 1/8" in front of the Muffler Bracket and cut the round bar.
- This will leave only the part of the Round Bar that is directly below the muffler bracket still intact.
- Use a file and round the remaining edge of the round bar. Spray the cut area with black spray paint or touch up paint to keep it from rusting.
- Remove the bolt holding the front end of the Lower Round Bar and use this bolt for installation of the GTank.



Finalizing the Install:

- Visually inspect to make sure the GTank is properly centered on the rear tire, then install the 4th (*Foot Peg Bracket at the same time*) bolt and properly tighten all 4 bolts and upper foot peg bolt as well. (*GTank can be adjusted slightly before bolting down.*)
- Reattach the left side lower frame member. (*Tighten well*)
- Attach Chrome Storage Box Cover to New GTank (*The 4 Line-X Coated Pegs may need light sanding to fit properly due to varying thickness of the coating.*)
- Attach Both Stock Fuel Tank Side Covers. Make sure no hoses are being pinched.
- Check all connections to make sure they are tight, but not over tight.
- Reinstall Left Fake Tank Cover
- Reinstall Center Instrument Console
- Reinstall Riders Seat
- Do Not Turn On 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 safe guard which is turning the switch to the 'Off' Position (*DOWN*), which will cancel the timer circuit and turn the pump off.
- Normal Operation consists of running your fuel gauge down to one bar then turning 'On' the Fuel Pump (*While riding*) and ignoring it for the next 4-5 minutes. The fuel pump will run for a pre programmed time and automatically shut off. During this time your GTank will have transferred all of its contents into your Main Tank and your fuel gauge should read full. Depending on which GTank you have and your specific fuel gauge characteristics the Fuel gauge may not stay on full as long as it does when you first fill your cruiser, but be assured there's a lot more gas in there than there was prior to flipping that switch!

Legal Disclaimer

As motorcycle fuel tanks are not regulated by the D.O.T., the GTank is sold as an off-road or racing component, and the buyer accepts full responsibility for knowledge and compliance of his/her 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 GMan Industries, Ltd and it's employees harmless from any loss and/or litigation resulting from 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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