



# Service Manual

## Baytech Service Manual for 6.0L Application

**LANDI RENZO USA CORPORATION**

23535 Telo Avenue | Torrance | California 90505 | USA  
Tel. (310) 257-9481 | FAX (310) 539-3041

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# Paperwork

1. Record vehicle information (VIN, mileage, model and year or date of manufacture
2. Record customer complaint and any relevant comments
3. Record diagnosis procedure to confirm customer's complaint

# Operator Clothing

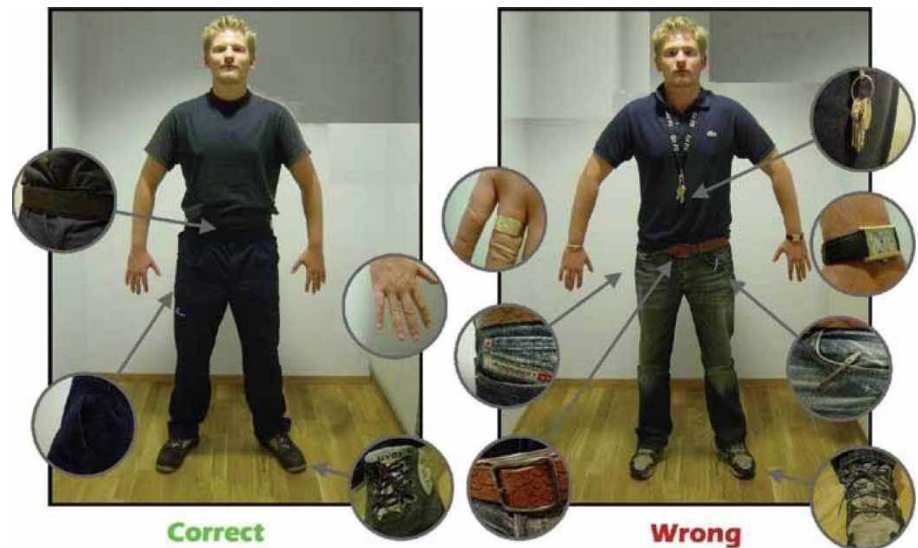
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## Operator/Technician clothing requirements

To prevent damage to the vehicle and offer added protection for the Operator/Technician, the following must be observed with regard to clothing:

- Belt buckle repositioned or removed
- Rings and other jewelry removed
- Clothing free of rivets or other sharp or protruding items
- Lanyards or other loose items removed
- Safety-shoes or other appropriate work footwear
- Eye protection for use when using air or electrically powered tools and when working on or near the vehicle battery.



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# Safety Procedures

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1. In the event there is an issue with fuel pressure, Shut-Off Valve must be placed in the 'Off' position by turning the valve handle clockwise to the right as indicated in the photo on the right.
2. If any leaks are present, the area around the vehicle must be ventilated to reduce the possibility of explosion or fire.



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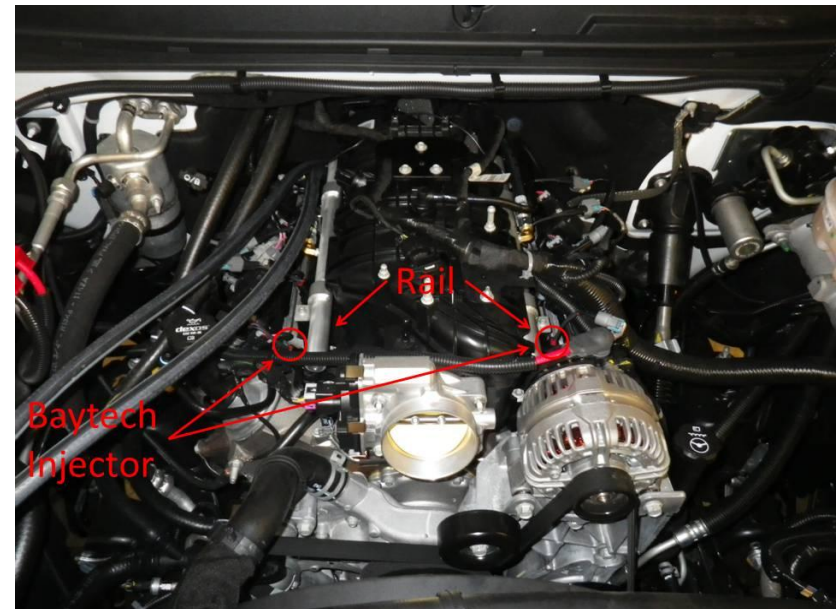
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1. In the event the S.E.S., or Malfunction Indicator Light is on, perform an OBD II system check using a diagnostic tool (shown at right).
2. Record any codes present.
3. If vehicle has a code associated with the EVAP system, perform the following:
  1. Contact Landi Renzo USA ([service@landiusa.com](mailto:service@landiusa.com)) to determine the cause of the problem.
4. If vehicle has a misfire code, perform the following:
  - a. Check fuel injector connector for proper connection
  - b. Check fuel injector nozzle is correctly inserted into intake manifold port.
  - c. Check if fuel injector is getting the signal to connector.
    - a. If fuel injector is getting the signal to connector, replace fuel injector. (Injectors stuck open due to improper installation procedures or from non-spec fuel are not covered by Landi Renzo USA/Baytech Warranty).
    - b. If injector is getting signal at injector connector replace injector. Contact Landi Renzo USA ([service@landiusa.com](mailto:service@landiusa.com)) for further assistance.



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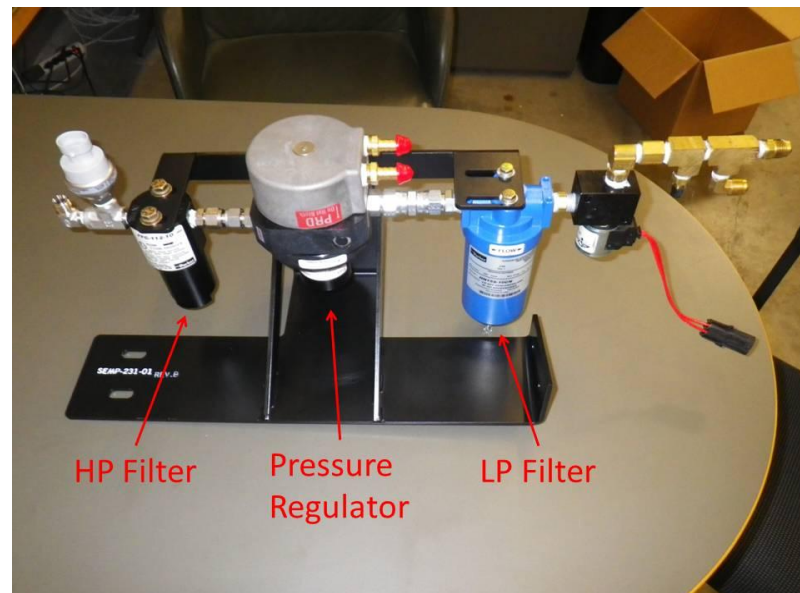
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- d. If you have reach or lean condition code, check the regulator output pressure. The pressure should be  $\approx 150$  PSI  $\pm$  10 PSI.



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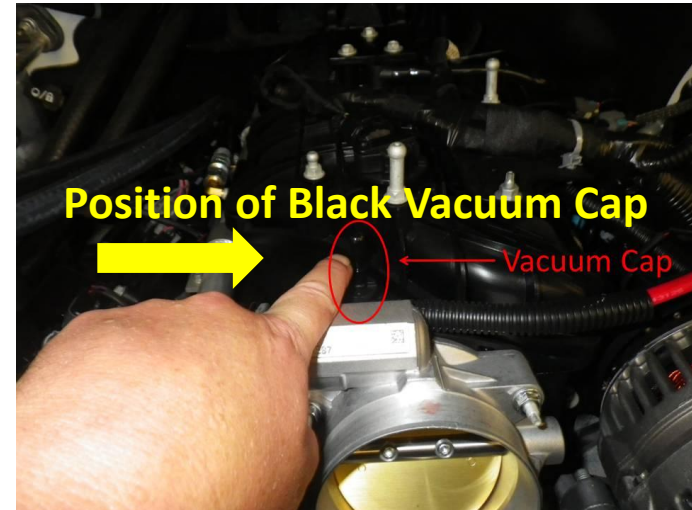


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- e. If the vehicle has lean codes, check if black vacuum cap is on the intake vacuum port at EVAP purge solenoid. Also, check that PCV breather hose is correctly connected and no additional engine vacuum leaks are present.
- f. Check that injector harness is routed properly (not criss-crossed).



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# Fuel Gauge Emulator

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1. Check power at the fuel gauge driver module. If power is not present back track to the fuse (refer to the proper wiring diagram for that specific vehicle application).
2. If vehicle fuel gauge is not functioning properly, check gauge driver output voltage on purple wire should be 0 volts full and 2.7 volts empty.
3. If readings from step A out of range, check fuel pressure sensor output on the white wire (1 volt = 0 PSI; 5 volts = 3600 PSI). If the sensor signal looks correct we have a bad fuel gauge module. If the sensor signal is incorrect, it's a bad pressure sensor. Inspect all wirings for any signs of damage. Contact Landi Renzo USA/Baytech for further assistance ([service@landiusa.com](mailto:service@landiusa.com)).

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# Inertia Box

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1. If vehicle has an inertia switch inertia box (driver side under dash and behind fuse manual) is functioning properly.
2. If everything is working properly and you still have problems please contact Landi Renzo USA/Baytech for further assistance ([service@landiusa.com](mailto:service@landiusa.com)).



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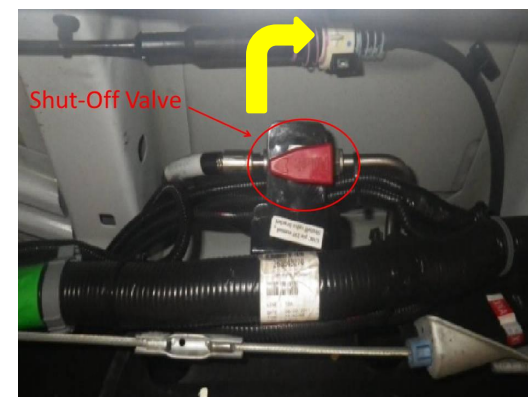
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# Low Pressure

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1. Place Shut-Off Valve in the 'off' position prior to performing any low pressure diagnosis and or repairs.
2. If the vehicle has either a lean or rich condition as indicated by any DTCs, and both caps are removed from the compensation ports on the pressure regulators, must perform low pressure test at the low pressure regulators ( $\approx 150$  PSI).
3. If you have low pressure or high pressure reading on test that may indicate possible bad regulator, please contact Landi Renzo USA/Baytech for further assistance ([service@landiusa.com](mailto:service@landiusa.com)).

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# High Pressure

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## 6.0L Application

1. Place Shut-Off Valve in the 'off' position prior to performing any high pressure diagnosis and or repairs.
2. Check for any fuel leaks. Refer to the Baytech Installation Manual for instructions on the diagnosis and correction of any fuel system leaks.
3. Check position of fuel tank valves. Valves must be in the 'open' position during normal vehicle operation.



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# Attachments

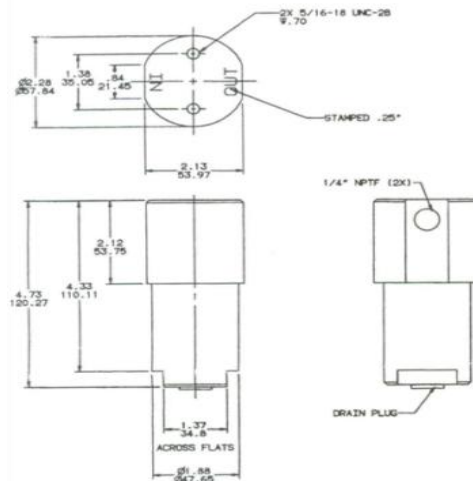
- Coalescing Filter information
- Wiring Schematic
- Inertia Switch – tank solenoid wiring diagram
- Service Form

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# Compressed Natural Gas Fuel Filter: FFC-112-10 Installation Instructions

Parker Hannifin Corporation  
Finite Filter Division  
500 Glaspie St. P.O. Box 599  
Oxford, MI 48371 USA  
313/628-6400  
FAX 313/628-1850



## Specifications:

Max. Rated Operating Pressure: 3600 psi  
Operating Temp.: -40 °F to 250 °F  
Sump Capacity: .5 oz.  
Port Size: 1/4" NPTF  
Flow: Inside to Outside Element  
Dry Flow Rating: 50 SCFM @ 100 psi  
Replacement Element Part No. CLS112-10

## Service:

**CAUTION:** The FFC-112-10 must not be under pressure during servicing. Doing so may cause serious injury. **Close the shut off valve, mentioned above, and slowly relieve line pressure before attempting service.**

**Replacing the element:** Change the element at regular oil change intervals or every 6000 miles. Using bottom flats, unscrew bowl and remove old element and replace.

**Draining:** Drain the housing every 2000 miles or as necessary. Remove drain plug with 1/4" allen wrench and drain until liquid is removed. Replace drain plug when completed.

## Application:

The FFC-112-10 is designed for protecting critical engine components in Natural Gas Vehicles (NGV). Contaminants can be introduced into the vehicle's fuel tank when being fueled. Contaminants may come from CNG compressors and storage facilities. The FFC-112-10 coalescing filter is specifically designed to remove oil, water and solid contamination from compressed natural gas. Special coalescing filters remove over 99.9% of all aerosols in the .3 to .6 micron range.

## Design:

The FFC-112-10 is constructed of aluminum 6061-T6 designed to withstand a burst pressure of 15,000 psi. The anodized finish provides long term corrosion protection.

## Mount Vertically

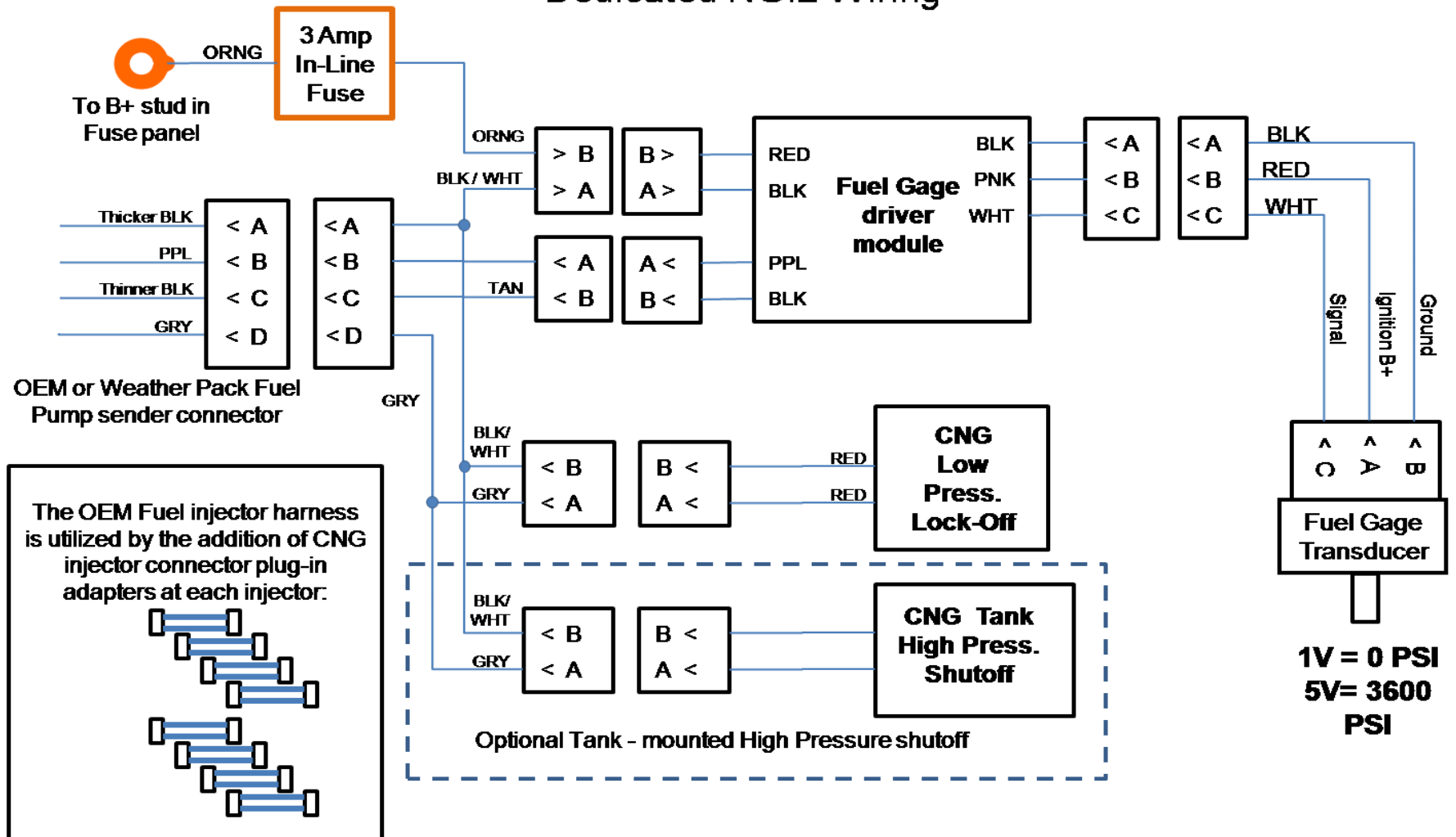
## Installation:

Locate the FFC-112-10 between the high pressure regulator and a shut off valve downstream of the fuel tank to allow coalescing and filtration at tank pressure. This also provides protection to the fuel regulator.

Mount the filter in an accessible protected location for easy servicing. Use connections approved by the American Gas Association (A.G.A.) and Department of Transportation (D.O.T.)

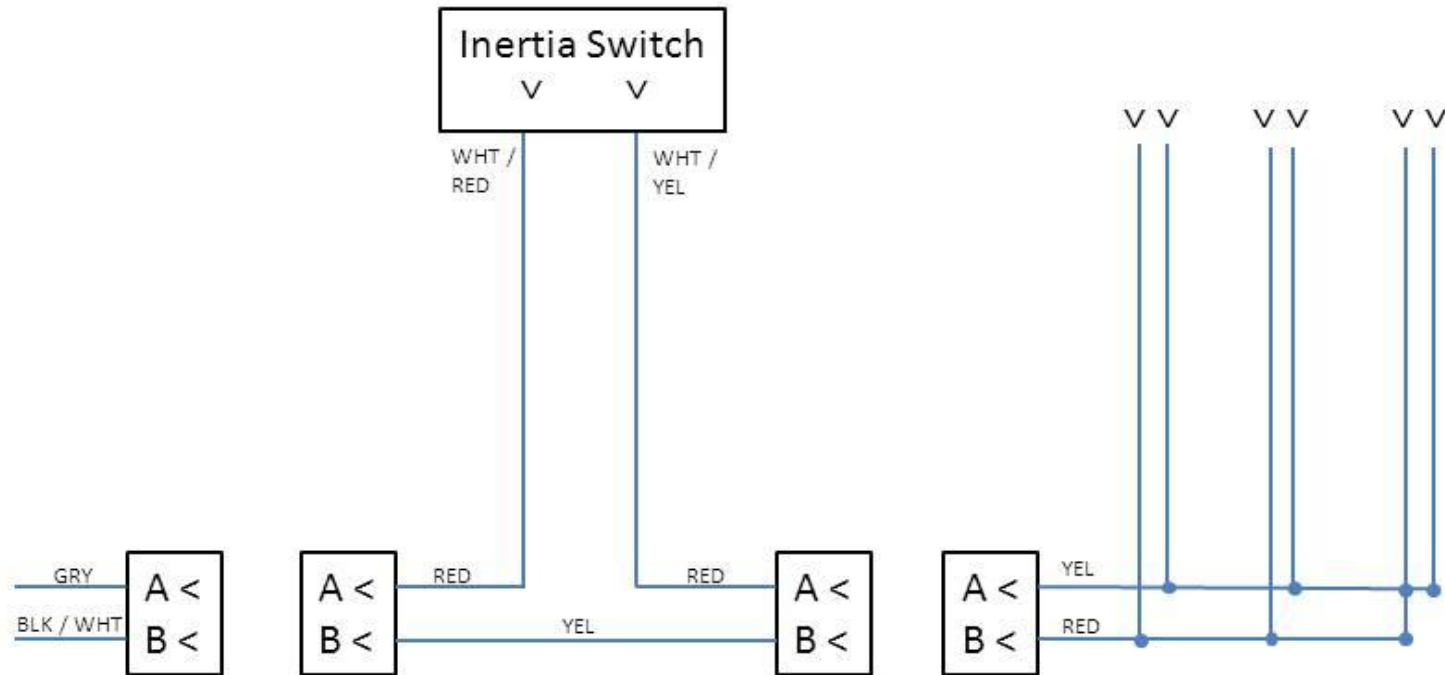
Install fuel lines with the fuel flow entering the filter into the inlet port and exiting through the outlet port. Test for leaks, with system pressurized, by using leak detection fluid.

# BAYTECH Corporation Dedicated NGI2 Wiring





# Inertia Switch / Tank Solenoid Wiring Diagram



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# SERVICE FORM



Date: \_\_\_\_\_

Vehicle Owner Information	
Name:	Company:
Telephone:	Email:
V.I.N.:	Vehicle Model:
Model Year:	Kit Installation Date:
Vehicle mileage at installation:	Current Mileage:

Repair Facility Information	
Company:	Contact Name:
Street Address:	City:
State:	Zip Code:
Telephone:	Fax:
Email:	

<b>Part(s) required:</b>	RO#:
Serial n. of defective part:	UPS tracking#:

*(Injectors stuck open due to improper installation procedures or from non-spec fuel are not covered by this warranty).*

All parts replaced under warranty should be returned to:

**Landi Renzo USA Warranty Service**  
**Landi Renzo USA/Baytech Corporation**  
**23535 Telo Avenue**  
**Torrance, CA 90505, USA**

<b>Complaint</b> (please specify diagnostic codes, if present):
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**Please return this form to Landi Renzo USA / Baytech for Service Assistance:**

- 1) Email this form to [service@landiusa.com](mailto:service@landiusa.com);
- 2) Fax this form to (310) 539 - 3041 and call to confirm receipt to (855) 526 - 3400.

Warranty part(s) will be billed to the customer and credited back if returned promptly and upon inspection the part(s) are indeed found to be defective.

# Contact Landi Renzo USA/Baytech

If you need additional assistance, contact Landi Renzo USA/Baytech Service by visiting our website and completing a service request form:

[www.landiusa.com](http://www.landiusa.com)

You can also send us an email to: [service@landiusa.com](mailto:service@landiusa.com)

Our telephone number for service-related questions is: **(855) LANDI00 (855) 526-3400**

Our fax number for service-related questions and transactions is: **(310) 539-3041 attn. Service**



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