## 13. Troubleshooting Guide

Alarm	Issue	Action
Red light on unit is solid	Unit is off	Check for alarms, acknowledge them, and restart the unit.
Red light on unit is flashing	Unit is currently in an alarm	Check for alarms and acknowledge them.
Analog lost	4-20mA flow signal has fallen below 4mA	Check for voltage on pin 7 (+) and pin 3 (-) on TB2 of Mixed IO card.
		Check to verify source is supplying analog signal.
Battery	Battery on RTU is dead	Replace battery. Ensure recipe has been saved from unit first, as the configuration will be lost when power is cut.
Motor Feedback	No communication between RTU and servo	<ol> <li>Check for 1-5V between pin 6 &amp; 7 on TB2 of Mixed IO card.</li> <li>If there is still no communication with the servo, remove it and send it to GPL Odorizers for testing.</li> </ol>
Hi	High injection rate	<ol> <li>Check to see if the unit alarmed due to high injection rate.</li> <li>Clear the alarm and restart the unit.</li> <li>Make any necessary adjustments to the Hi alarm settings or the valve settings.</li> </ol>
HiHi	High injection rate	<ol> <li>Check to see if the unit alarmed due to high injection rate.</li> <li>Clear the alarm and restart the unit.</li> <li>Make any necessary adjustments to the HiHi alarm settings or the valve settings.</li> </ol>
Isolation	Valve closed but too much odorant flowed	Pump check valves may have failed.
Lo	Low injection rate	<ol> <li>Check to see if the unit went into alarm due to injection rate or time.</li> <li>Clear the alarm and restart the unit.</li> <li>Change the Lo settings or the valve settings as necessary.</li> <li>Check blanket pressure, pressure to iso valve, valve positions, filter.</li> </ol>
Lockout (remote closure)/Remote Lock	Red tag lockout	No action required
Lockout (software) / Local Lock	Red tag lockout	No action required.

Alarm	Issue	Action
LoLo	Low injection rate	<ol> <li>Check to see if the unit went into alarm due to injection rate.</li> <li>Clear the alarm and restart the unit.</li> <li>Change the LoLo settings or the valve settings as necessary.</li> <li>Check blanket pressure, pressure to iso valve, valve positions, filter.</li> </ol>
Manual Gas Alarm / ManGas	Gas Mode left in Manual mode for more than the allowed number of hours	When flow signal is restored, switch from Manual to Auto.
Motor	Motor cannot achieve desired RPM	Check valve positions.
NoOdor	No odorant flow detected while unit is operational	<ol> <li>Check the pressures on the unit; be sure that the blanket pressure on the odorant tank is between 15 and 30 psi.</li> <li>Check the level on the odorant tank.</li> <li>Clear the alarm and restart the unit.</li> </ol>
Power Loss	Unit turned off due to interruption in power supply	Verify integrity of power supply.
UpperLimit Calculation / Upper Limit	Settings exceed functional capabilities of the unit.	Adjust Gas or Odorant Injection Rate settings, or disable alarm.
Voltage	Voltage to RTU has fallen below allowable limit	Check power source voltage.
Zero Gas Indicator	Unit shows gas flow rate of zero	Check to make sure that active flow is not below gas floor level.
		Check flow source to ensure it is reporting flow correctly.
Odorant Temperature	Failure of odorant temperature sensor.	Replace odorant temperature sensor.
Hi Gas	Abnormally high flow rate reported by flow computer.	Check flow computer for accuracy.
		Check flow computer outputs for proper function.
Motor Feedback	Motor is not reporting its actual speed.	Clear alarms. If problem continues, replace motor controller.
Efficiency	Pump is not operating within normal efficiency range.	Check filter for free flow. Run in prime mode to establish baseline efficiency.
No Feedback	Both the odorant flow meter and the motor speed feedback have failed. It is impossible to verify actual injection rate.	Replace failing components.