



LIQUITRON™ LMI Connect[®] smart monitoring service

Series 7000 Multi-Dimensional Controller

Manual No.: LIQ-FAQ

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- 1. How often does the display screen refresh?**
 - a. The display screen refreshes sensor values every 7-20 seconds. This display is dependent on sensor reading stability and a polling cycle from the Main logic board. Please note that the Main logic board performs readings and controls the pump relays in real-time. There is virtually no delay between a sensor reading triggering a relay and that relay opening or closing per the application configuration. The screen delay polling cycles are built to optimize graphing data, processor performance and product lifespan. NOTE: To prompt an immediate refresh on dashboard screenshot the 'Dashboard' link in the upper left corner.
- 2. Does the Time Out of Range setting affect my pump relays?**
 - a. The Time Out of Range alarm is a setting available in the 'Application Settings' page. This is an Alarm Only condition and does not affect pump relay operation. This setting will provide an alarm when a sensor is in an 'Out of Range' status for the set time. The allowable settings are from 1-999 minutes. The Default value is 15 minutes.
- 3. How can I set the maximum runtime for pump relays?**
 - a. The Max Pump Run Time setting is available in the Application Settings page. This setting creates a timer applied globally to all pump relays. When a pump relay is active for the set time, all pump relays will turn off and an error message will show on the Liquitron screen. The allowable settings are from 1-999 minutes. The Default value is 60 minutes.
 - b. Note: Once triggered, this condition is visible on LMI-Connect. However, it must be acknowledged on the Liquitron unit itself to return to automatic mode.
- 4. What is the Flow Meter Constant?**
 - a. The Flow Meter Constant (Make Up and Blow Down) is the K Factor (pulses/unit of measure) as indicated by the flow meter documentation. The K factor is many times marked on the flow meter itself. In some cases of high flow meters, the pulse rate may be given as units of measure/pulse instead of the standard K Factor. In this case you will need to calculate the pulse/unit of measure for input (i.e. 100 gal/pulse = .01 pulses/gal).
- 5. Do pump relays activate when my system has no flow?**
 - a. A No Flow condition turns off all pumps on the Liquitron as a safety measure. Some system applications may have an automated process to turn off the circulation pump on a schedule or based on system temperature. Ensure in setting up timed applications that this behavior or schedule is accounted for. Also, if using Max Pump Run Time or Time Out of Range Alarms, make sure to take into account possible longer pump run times resulting from a No Flow condition.
- 6. Can I export my data from the Liquitron?**
 - a. The Liquitron logs data every minute for graphing and export logs (csv and pdf files). Note that discrete events lasting less than a minute may not be captured. To Export data go to Advanced Settings...View/Export Logs and select a date range to export.
 - b. LMI-Connect will capture data every 5 minutes. Discrete events are captured real time. To export data from LMI-Connect, go to the Trending graph and under the menu icon select the export method desired (PNG, PDF, XLS).
- 7. Will pump relays activate when I am in the Settings menu?**

- a. As a safety feature, entering the *'View Application Summary'* and *'Application Settings'* menus will turn off active relays. Exiting those menu panels will re-activate the sensor controls and relays as defined in the application setup. However, if a scheduled biocide is running the event will be terminated and the event will NOT restart.
- 8. How do I check the firmware versions of my unit?**
- a. In the Settings menu go to *'System Settings'*->*'System Details'*. This page will show the firmware versions of the Display Board and Main Board
- 9. How do I update the firmware on my Liquitron?**
- a. LMI provides continual improvements and feature enhancements available to the customer via regular firmware updates. It is advised to download and install the latest version available for your controller to ensure optimal functionality.
 - b. The latest updates are available from LMIPUMPS.COM ([Here](#)). Download the zip file, *'Software Upgrade Files'*. Extract the zip file to a USB drive. This will create a folder called *'Upgrade'* on you USB drive. Place drive in Liquitron (USB port on right side of unit). Under the advanced Settings menu select *'Update Firmware'*. From the file list, select *rbins.tgz* for the first update. This is the Display Firmware. When complete, the unit will reboot. Return to the Update Firmware menu and then select the *'Liquitron_55583_main_Rx.x.x.bin'* file to update the Mainboard Firmware. Your application settings WILL be saved when performing a firmware update.
 - c. Confirm application installed properly by checking *'System Settings'*->*'System Details'*.
- 10. How do I change my application settings?**
- a. In the Settings menu choose *'View Application Summary'*. This will show I high level view of you application setup. You can choose *'Make Changes'* for a particular item to enter the setup wizard for that item. NOTE: When making changes, the setup wizards will re-calculate default values for Alarms.
 - b. To change all settings for your application in the Settings menu and choose *'Advanced Settings'*. This will enter the setup wizard from your entire application.
 - c. To change your base application (e.g. change from Boiler to Cooling Tower) you must perform a Factory Reset from the *'Advanced Settings'* menu. This will erase all settings and data and return to the unit to the original factory setup wizard.
- 11. Why does the display brightness dim when unit is left idle?**
- a. In order to reduce non-necessary energy consumption the Liquitron will automatically dim the backlight brightness after periods of non-use. The idle time settings can be adjusted in *'System Settings'* -> *'Display Timeout'*. Default idle settings are 5 minutes. When backlight is dimmed, simply tapping the display will wake the display to normal brightness setting. All control functionality is still active when display is in idle mode.
- 12. What is LMI Connect?**
- a. LMI Connect is an online portal that can be used to monitor device activity and also supports limited control of your Liquitron controller. Go to lmi-connect.com to register and monitor your Liquitron controller.
- 13. How do I set alerts with LMI Connect?**
- a. Alerts can be enabled for sensor alarm conditions and for a return to *'In Range'* from an Alarm state. On your device dashboard, click on the Alert LED on the sensor you wish to enable an alert. Under *'Select Users'* you can select 2 users for email alerts. The SMS

option will also send an SMS message if there is a phone number in the user profile(s).
When using SMS alerts, you enable escalated SMS messages by selecting 1 or 2 users.

14. Why doesn't the map view of LMI Connect show my location?

- a. GPS locations for devices can be input in the '*Setup*'->'*General*' menu for a device in LMI Connect. Enter the Latitude and Longitude on the location and the device will appear in the map view.

15. How do I send reports via LMI Connect

- a. Reports can be scheduled on a Daily, Weekly and Monthly basis from the '*Reports*'->'*Scheduled Reports*' menu from the device page in LMI Connect. Click 'Add Report' to start a setup wizard that will walk you through the report creation. Existing reports will be listed for editing and assigning users to receive the reports.

16. How do I program the controller in the pH Proportional mode?

- a. The default in the pH application is an Off/On mode.
- b. Enter the Base and Acid pumps setpoints with the differential (Hysteresis) **0**.
- c. Pulse pacing is supported on Relays 1 and 2 only. See wiring instructions in Manual.
- d. This is the Setpoint 1 in the Proportional mode.
- e. Navigate to the Application Setting and Pulse Pacing to enter Setpoints 1 and 2 speed.
- f. In the Application Settings set High/Low alarms, Time out of Range, Max Run Time
- g. Max Run Time to be set at **999** minutes.