



Scientific Systems, Inc. / Lab Alliance

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QUICK-SET PUMP CONTROL

Serial Pump Control Software for SSI / LabAlliance Pumps

Installation:

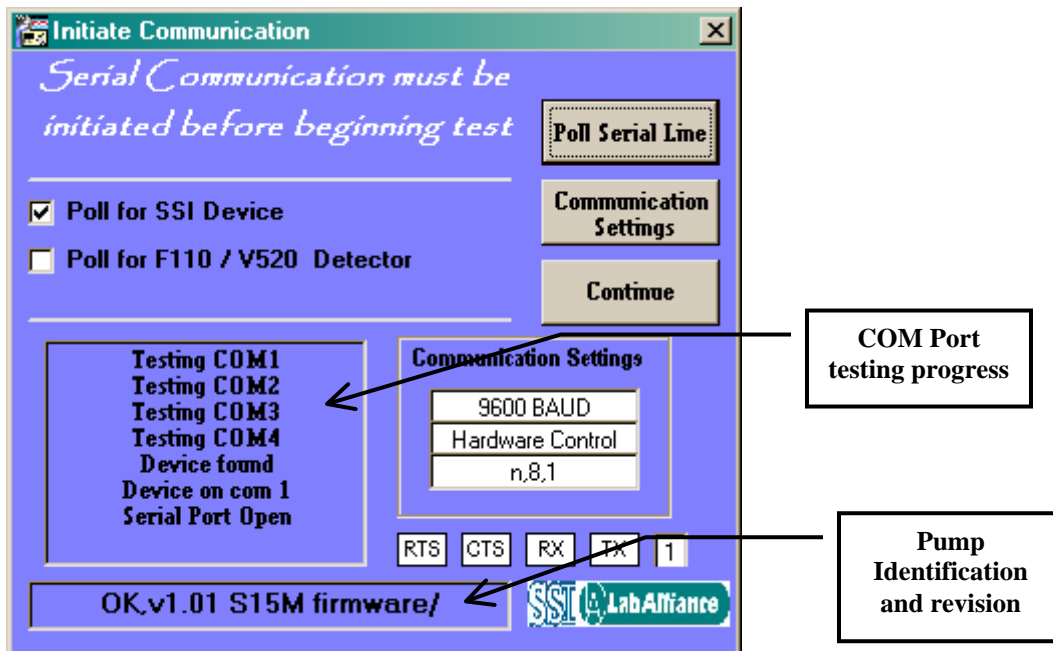
- Run the Quick-Set “setup.exe” program file & follow prompts.

General Information:

- If unsure of any pump settings or whether your model pump allows certain settings, the software will report back an error message if the command is not allowed. “11111” is an error code meaning that the communication is probably not available or communication has been broken.

Startup Screen:

- Initial screen is for locating the SSI / LA pump or Detector.
 - Click on the “Poll Com Port For Device” button.
- This will scan the 4 standard PC COM ports for the attached device.
- When the device is found, click on the” Continue” button.



Main Screen:

- General pump information is displayed along with firmware identification.

- Information screens are updated automatically, however, refresh buttons are available for pump information
- Basic operations and basic flow rates buttons are available.
- Flow rate buttons for higher flows are available if the pump head type is set for the larger flow varieties.

The screenshot shows the 'Pump Control Software' window. At the top is a menu bar with 'Configure', 'Pump', 'Advanced', and 'About'. Below the menu bar are buttons for 'Pump Run', 'Pump Stop', and 'Reset Pump'. The main area is divided into 'Quick Hit Flowrates' (9.0, 5.0, 2.5, 1.0, 0.5, 0.2, 0.1 ml/min) and 'Quick Hit Pressure Limits' (Upper Pressure Limit to Max PSI, Lower Pressure Limit to 0 PSI). A 'Pump Information' section displays status like 'Flow Rate = 0.100 mL/min' and 'Pump Stopped'. At the bottom, there's a 'Com Progress' bar and a 'COM port for the device' section with a dropdown menu set to '1' and a 'Close' button. Callout boxes point to the menu bar, the 'Refresh Pump Information' button, and the COM port dropdown.

Menu Bar for additional controls

Displays the actual commands being sent.

COM port for the device

- Additional Control is available from the menu bar under **--Pump**
-- Basic Control

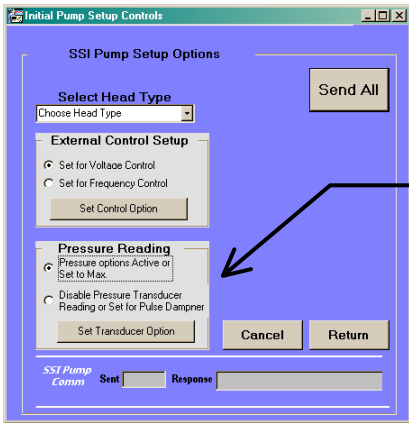
The screenshot shows the 'Pump Setup Options' dialog box. It has three main sections: 'Flowrate Setting' with a 'Set Flowrate' field (0.1) and a 'MicroBore' checkbox; 'Pressure Settings' with 'Pressure Comp' (1000 PSI) and 'Pressure Limits' (Upper Limit 5000 PSI, Lower Limit 300 PSI); and 'Pump Run' with 'Pump Run', 'Pump Stop', and 'Close' buttons. 'Send Commands' and 'Refresh' buttons are also present. A callout box points to the 'MicroBore' checkbox.

Check Box for flow rates using three decimal digits (if applicable... See firmware window).

Pump Setup Options:

- See pump operations manual for specific pump specifications.
- Pump Head type, external control type, and pressure transducer limitations (not available on all pumps) can be modified from the menu Bar **--Pump**

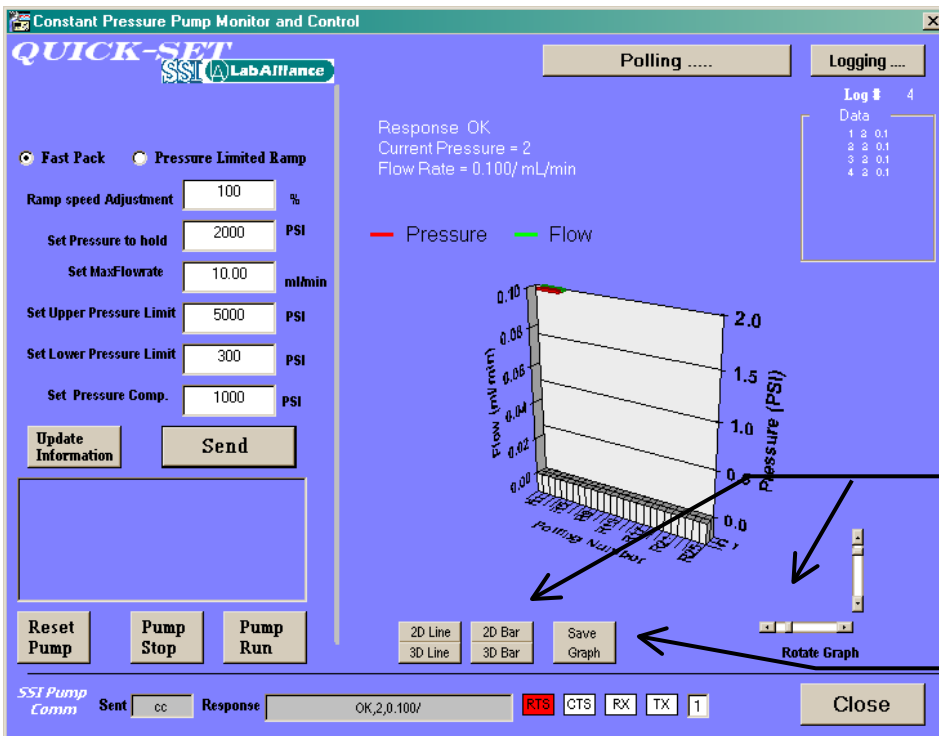
---Pump Setup



Not all pumps allow for specific setups of these options.

Constant Pressure Column Packing Pump Control

- Constant pressure pump specific controls can be accessed through – **Pump**
-- **Constant Pressure**



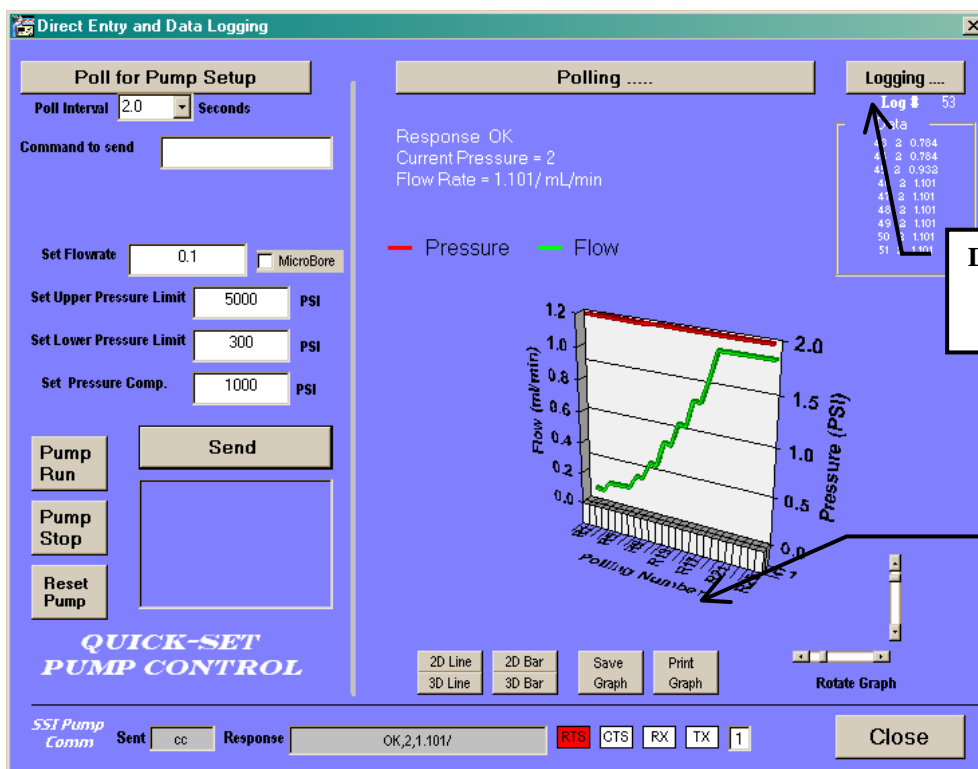
Graphing controls for user preferences

Graph may be saved for future display purposes

- Constant pressure pumps continuous flow modification firmware requires some specific communication needs. Delays may be seen in the startup and updates of this screen.
- See the Constant Pressure pump manual for descriptions of these pump settings
- Pump flow and pressure may be graphed and logged (to a comma and space delimited text file).
 - Zero readings are not graphed
 - All entries in the test file are time stamped.
 - Text files are easily imported into EXCEL but do not require EXCEL on the machine collecting the data.
 - Absolute accuracy of the polling interval is not guaranteed, this is a Windows limitation.
- The Graph will not start until the Logging has been setup (prevents accidental data loss).

Advanced Constant Flow Pump Controls

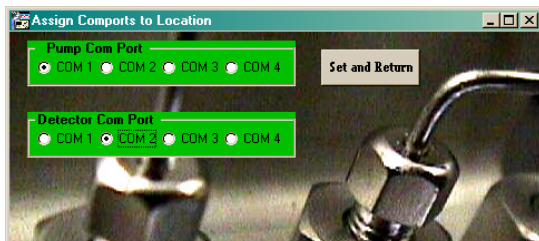
- Advanced controls and Data Collection for constant flow pumps controls can be accessed through – **Advanced**
 - **Direct Entry and Data Acquisition**
- Flow commands as specified in the pump manual can be entered.
- Pump flow and pressure may be graphed and logged (to a comma and space delimited text file).
 - All entries in the test file are time stamped.
 - Text files are easily imported into EXCEL but do not require EXCEL on the machine collecting the data.
 - Absolute accuracy of the polling interval is not guaranteed, this is a Windows limitation.
- The Graph will not start until the Logging has been setup (prevents accidental data loss).
- Data may be logged as slow as one point every 15 minutes or multiple times per second.



Additional Menu Items:

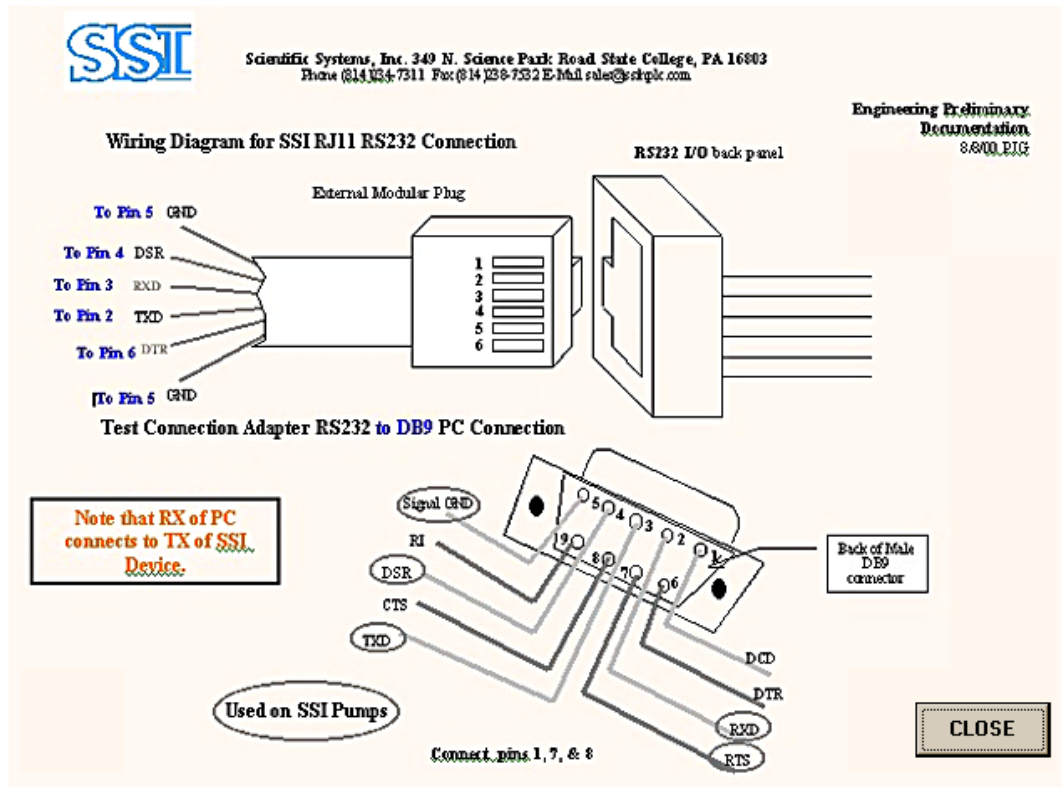
Manually Assigning COM ports.

- COM ports can be manually assigned through ---**Configure**
 - **Assign Com Ports**



PC connection to the Pump

- A wiring diagram is available under – **Configure**
-- **RS232 Connection**



SSI/ Lab Alliance information:

- Information is available for contacting Scientific Systems, Inc. / Lab Alliance under the –**About** Menu.

