

System Software Instructions

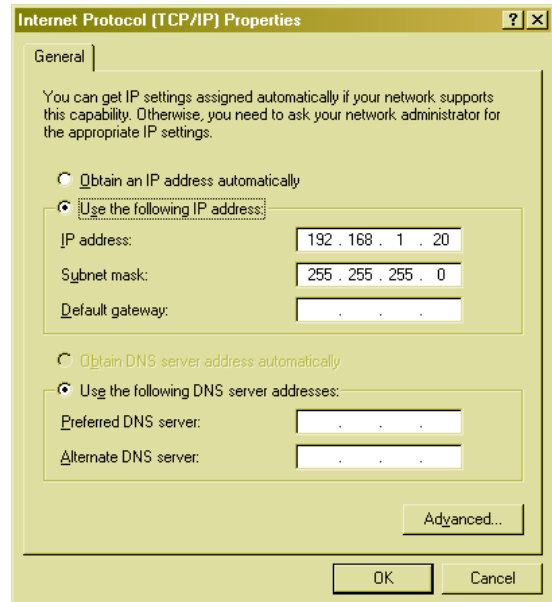
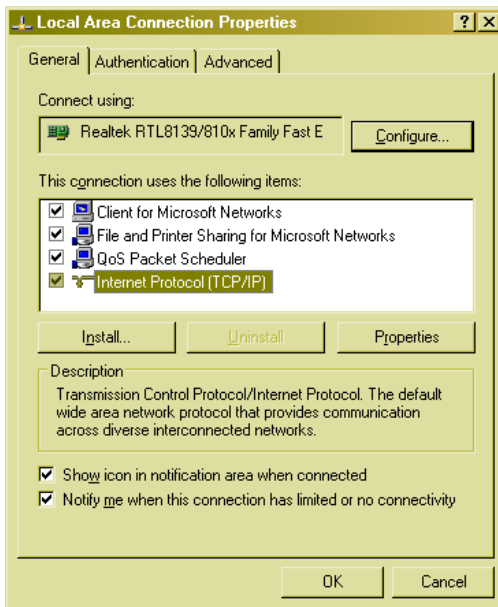
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The “LocateIP” Utility is used to check the communication status between any control device and the computer running this software. It should be used before running any other utility to ensure a good communications link has been established.	
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This program is used to enter air and gas calibration curves.	
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This program is used to make technical configuration changes to the process controllers and backup all process control parameters. Also, this utility can be used to calibrate the thermocouple and probe analog inputs on these devices.	
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The “Firmware Update Utility” is used to make firmware changes to any control device. After performing a firmware update, all parameters (PID, Setup, etc) should be checked and verified to ensure they have not been changed during this process.	

Communications Link Setup

Prior to running any program detailed in this document the computer must be connected the control device using a standard “crossover” Ethernet cable. After the cable has been connected you must ensure that the new “LAN Connection” is configured correctly.

1. Open the LAN properties Setup Screen:
Start>Settings>Control Panel>Network Connections>Local Area Connection>Properties
2. Open the TCP/IP Properties Dialog box.

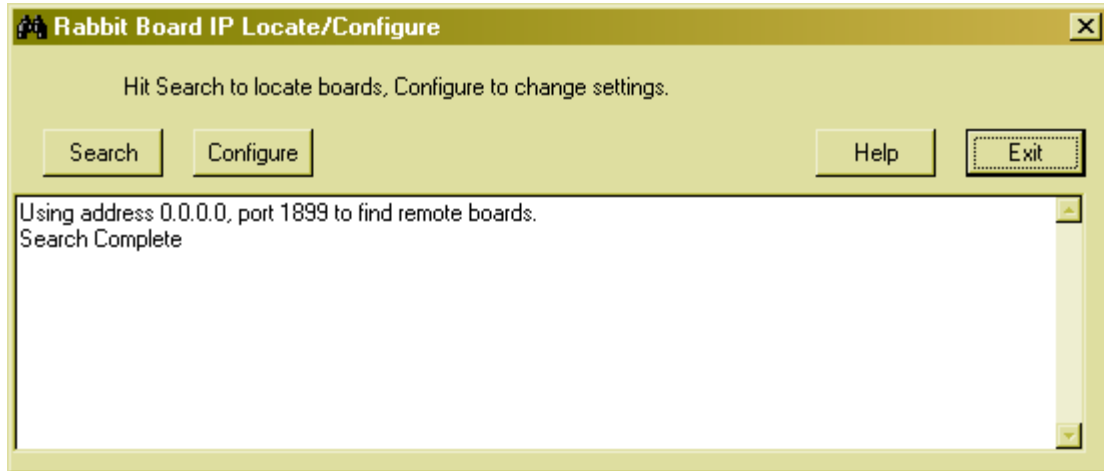


3. Select “Use the following IP Address”
4. Enter the following IP address (depending on the device you are connected to):
Link to Ratio/SMeth PCB
IP Address: 192.168.1.20; Subnet Mask: 255.255.255.0
Link to 9200/9100 Controllers
IP Address: 192.168.0.20; Subnet Mask: 255.255.255.0
5. Click “OK” and close all dialog boxes.
6. Run “Locate IP Utility” to confirm link properties.

Locate IP Utility

1. Launch the "LocateIP" utility.

This utility searches all IP address and will report the identify and IP address of any device attached to the crossover Ethernet cable. The picture below reports that no device has been located. When a device is located, confirm that the IP address and Subnet Mask is similar (except for the last number of the IP address) from the values entered during the communications link setup in the manual.



Default IP Addresses for EndoInjector Devices

- **Ratio/SMeth PCB**
IP Address: 192.168.1.225; Subnet Mask: 255.255.255.0
- **9200 Controller**
IP Address: 192.168.0.200; Subnet Mask: 255.255.255.0
- **9120/9100 Controller**
IP Address: 192.168.0.210; Subnet Mask: 255.255.255.0

System Flow Calibration Utility

Launch the “System Calibration” Utility

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To Open a Flow Calibration Curve:

1. Select the “Source” where the curve file is located.
(Device or Disk)
2. Select the “Valve” location
Valve #1 = Air/Nitrogen Curve
Valve #2 = Gas/Methanol Curve
3. Press the “Load” button.

To Save a Flow Calibration Curve:

1. Select the “Valve” location for the curve.
Valve #1 = Air/Nitrogen Curve
Valve #2 = Gas/Methanol Curve
2. Press the “Save To” Button that details where you would like to save this calibration curve.
(Device or Disk)

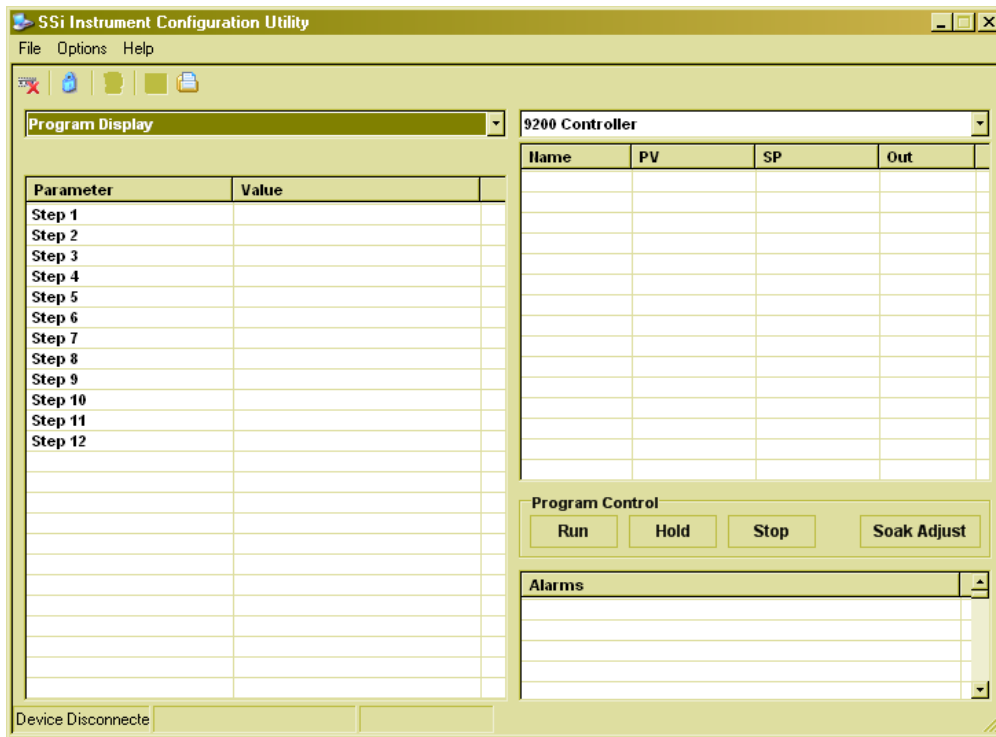
Note:

It is always recommended that you save the calibration curve to a “disk” location before saving the curve to the control PCB. This is to ensure you have a back up file in the event the program fails to write the curve to the device and must be opened again.

These calibration curves convert the transducer milliamp signal into a flow rate value depending on the orifice size installed on the system. Calibration curve data should be provided by Atmosphere Engineering and not changed unless specifically instructed as this can have dramatic effects on system performance and safety.

9200 / 9100 Configuration Utility

Launch the “Configurator.exe” utility.



Starting the Configurator Software

1. Press the “Blue” lock icon located at the top-left corner of the program window.
2. Type the following Information:
User Name: Administrator
Password: 2
3. Press the OK button. If login is successful the lock icon will turn “Green”
4. Select the Controller you are connected to using the device selection box located in the upper-right corner of the program window.
5. Click the “Connection” icon (red X) located in the top-left corner of the program window to establish a communication link.
 - a. If a successful communications link is established the Red X will change to a Green Check Mark and the message “Comms Good” will appear in the bottom-left corner of the program window.
 - b. If the link is not successful and a “Comms Bad” message appears in the bottom-left corner of the program window, review the computer IP setup procedure and Locate IP for the device you are communicating with.

9200 / 9100 Configuration Utility (continued)

Backup/Restore the Control Device Configuration

1. Confirm the communications link is made and the “Comms Good” message appears in the bottom-left corner of the program window.
2. Enter the System Management (Backup/Restore) window
Options > Settings > Backup/Restore(Tab)

Parameter	Compare	To

Backup Configuration

1. Click the “Backup Controller” Button to create a backup file of all parameter settings contained on the device currently connected.

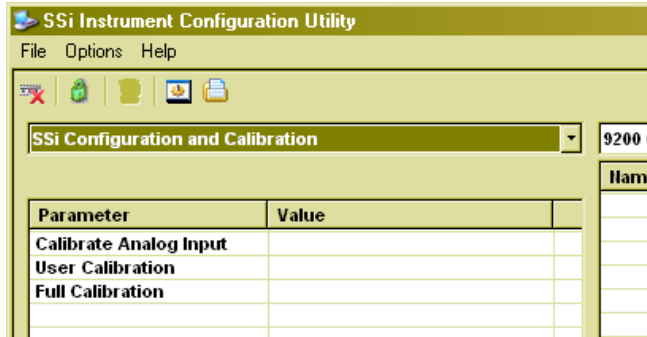
Restore Configuration

1. In the “Backup Files” section, select the controller you are currently connect to.
2. Under Back File, select the backup file date you wish to restore to the connected device.
3. Click the “Restore” button.

9200 / 9100 Configuration Utility (continued)

Calibration of 9200 Analog Inputs (Thermocouples and Probe mV Signals)

1. Confirm the communications link is made and the “Comms Good” message appears in the bottom-left corner of the program window.
2. In the drop down parameter selection box, select the “SSi Configuration and Calibration” item.



3. Single Click on the “User Calibration” within the parameter list
4. Follow all instructions to set the “cold junction” temperature and zero span the analog inputs as required.

9200 Input Descriptions

- a. Input #1 = Probe mV Signal
- b. Input #2 = Probe T/C Signal
- c. Input #3 = Retort Temperature Control T/C Signal

Note:

It is very important to exit the calibration mode window by pressing OK and allow the device to properly exit calibration mode. If the device becomes disconnected during the calibration procedure, reestablish communications and the device as the device might still be left in the calibration mode.

Firmware Update Utility

1. Start up the program **FirmwareUpdate.exe** after making a proper Ethernet connection between the device (9200 or ratio PCB) and the computer and confirming the connection is valid using “LocateIP”.
2. The device that is connected should appear in the “Board List/Status” section of the program window.
3. Select the appropriate firmware file to be sent to the device by clicking on the “...” button next to the “User Program” entry section and browsing to the file. The file should have a “.bin” extension.
IMPORTANT: DO NOT CHANGE THE “RAM LOADER” FILE LOCATION.
4. After confirming the proper “User Program” has been selected, Press the Download Button on the top of the program window.
NOTE: THIS WILL STOP THE ENDOINJECTOR IF IT IS CURRENTLY OPERATING.
5. After the download is complete, the device should be found again in the “Board List/Status” section. The description should now include the firmware version that was recently installed.

