DigiVac

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Digivac Model 200 Ethernet Addendum to the Model 200 Instruction Manual

Thanks for your purchase of the Digivac Model 200/Ethernet digital vacuum gauge. This addendum is to guide you to enable the monitoring your Digivac Vacuum gauge from a remote computer.

The 2 ways to monitor the Digivac Model 200 vacuum gauge is by standard RS232/serial connection to your computer, and the other is by Ethernet.

The Digivac Model 200 is set at the factory for 192.168.0.200 by default. If there is no other conflicting IP addresses, feel free to plug the digivac into your network and surf to: http://192.168.0.200

Steps for Standard RS232 communication between a PC and a Model 200:
1. Plug in your Digivac Model 200 Vacuum gauge to wall power.
2. Plug in a standard DB9 Male to DB9 Female RS232 serial cable (provided with unit) into your PC, and in to the vertical RS232 female DB9 port. It is just to the left of the Ethernet RJ45 plug (cable provided).
3. Open up HyperTerminal
    a. Click "cancel"
    b. Click on "File" then "New Connection"
    c. Type in a name in the dialogue box like "9600-8-N-1"
    d. Choose an Icon
    e. Click OK
    f. Select the appropriate COM port for your computer, the sample here is COM 1.
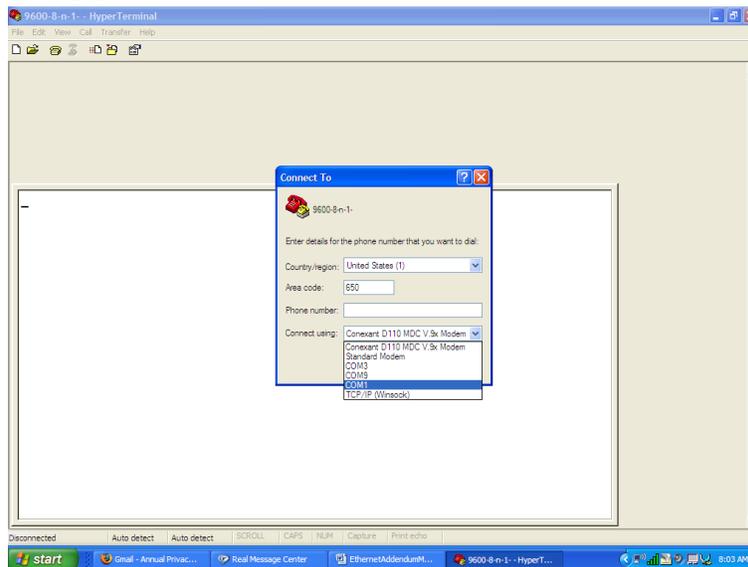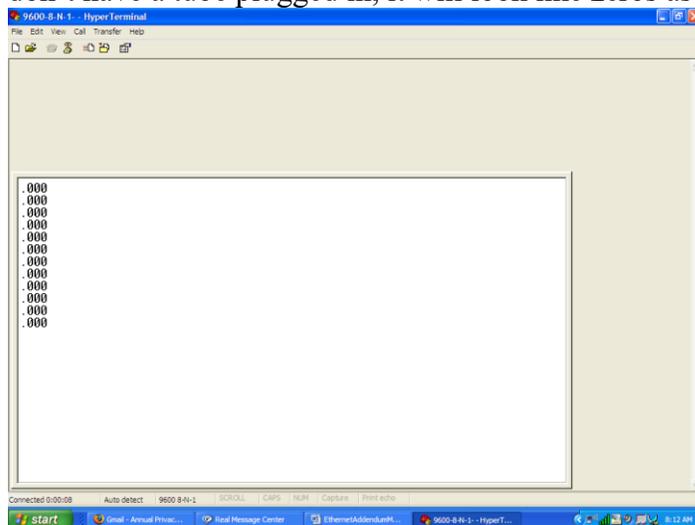

    g.

h. Choose settings in Dialogue box of 9600, 8 Data Bits, None Parity and 1 Stop Bit
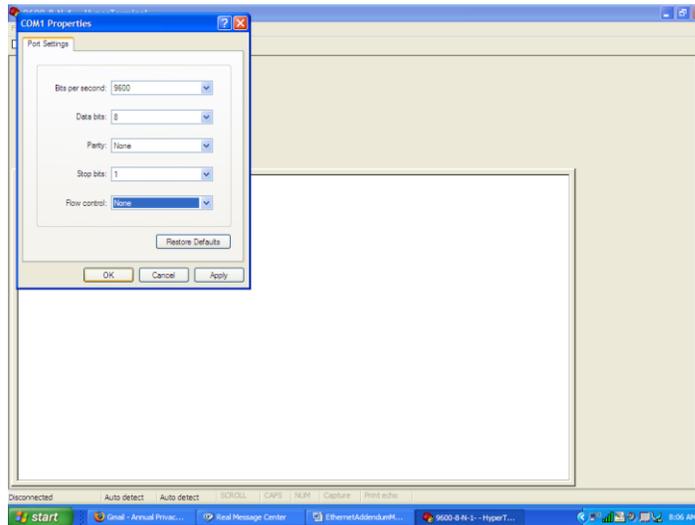
i.

j. Click "OK"

k. At this point, you should see data streaming across the screen. If you don't have a tube plugged in, it will look like zeros as below.


l.

m. At this point you will be able to view and log the Digivac data any where your RS232 cable can reach.

n. Leave HyperTerminal open if you'd like to configure the IP address of the Digivac Model 200

Steps for setting up the Digivac Model 200 Ethernet port for remote monitoring:

There are two ways for setting up the Ethernet address on the model 200: Either with the included Ethernet configuration CD, or through the serial port. We find that the serial port configuration is easier, thus is presented here. If you'd like to try the software method, please consult the appendix.

1. Obtain an IP address, Netmask and gateway from your network administrator. For small locally managed networks, use an unused IP address, a Gateway of 255.255.255.0 and Gateway address of x.x.x.1 (the same first three numbers as your unused IP address.
2. Open up HyperTerminal, and configure as above.
3. Plug the RS232 cable AND null modem adapter (provided) between your computer and the Digivac Model 200 serial port (vertical to the left of the Ethernet port, see above for more details.
4. Press the "X" key repeatedly while power cycling the Digivac Model 200
5. Press "enter" to enter setup mode
6. Type in "0" to set the IP address, and follow the prompts.
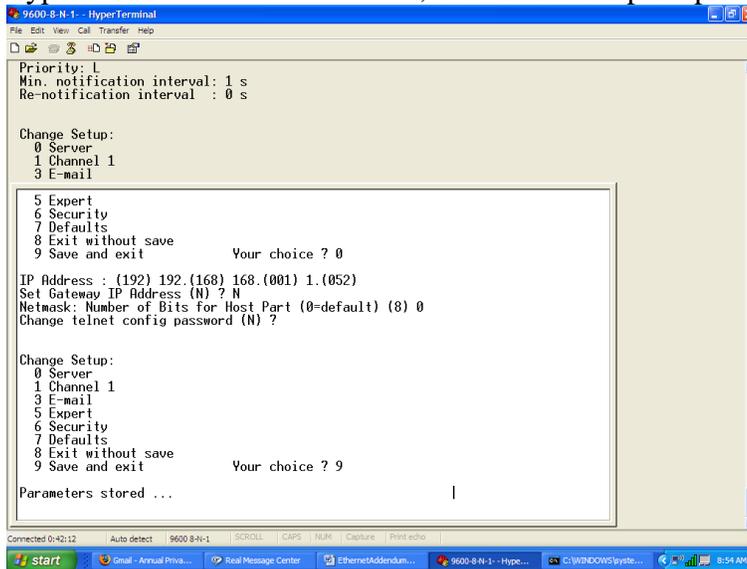
7.
8. Enter in "9" to save and press "enter"
9. Connect your Digivac Model 200 into the network with a standard RJ45 Ethernet cable.
10. Test your connection by opening up a DOS command window and typing "ping xx.xx.xx.xx" Where xx.xx.xx.xx is the IP address you assigned the Digivac.
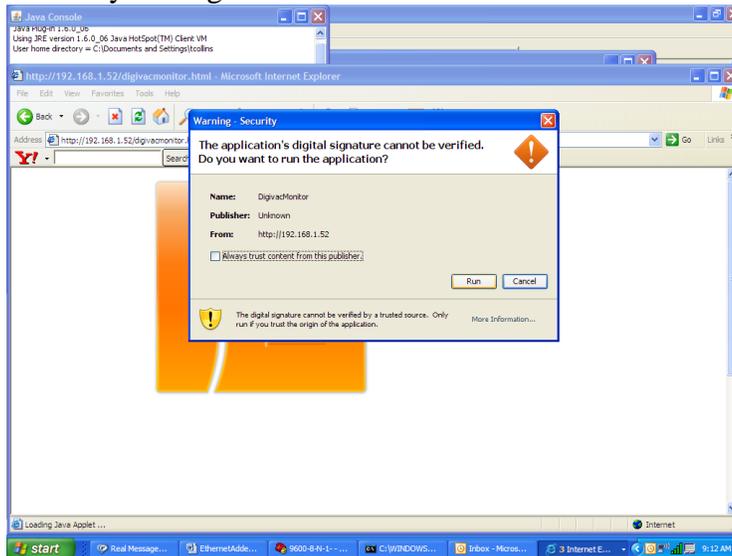
11.

12. Verify that the IP address is reasonable. Above is an example of a good test. A bad test would result in the request "being timed out"

13. Unplug your Null modem and serial cable from the Digivac

14. Open up your web browser of choice and surf to http://***EnterYourIPaddresshere*** to view your DigiVac

15.

16. Note that you will need to click "Run" even though you'll get an error message about the Java Applet not being signed. We'll integrate this in a future version.
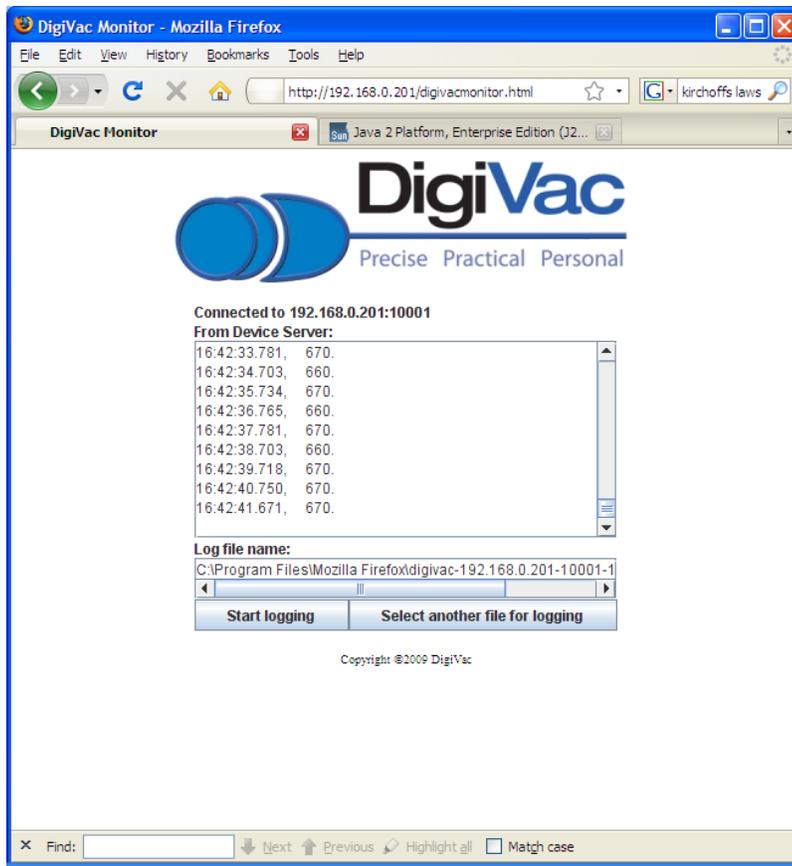
17.

18. A successful configuration and connection looks like above. The column to the left is the time, and the column to the right is the vacuum in Torr. Feel free to log to a .CSV file that can be later opened up in excel.

19. Additionally, The Digivac company sells the Digivac Plot software that gives you a virtual Digivac Model 200 screen and plot features. Please contact Digivac for pricing. To use, just install the software, select Port ➲ LAN and select LAN address and fill in the Digivac IP address.

This software can be purchased at:
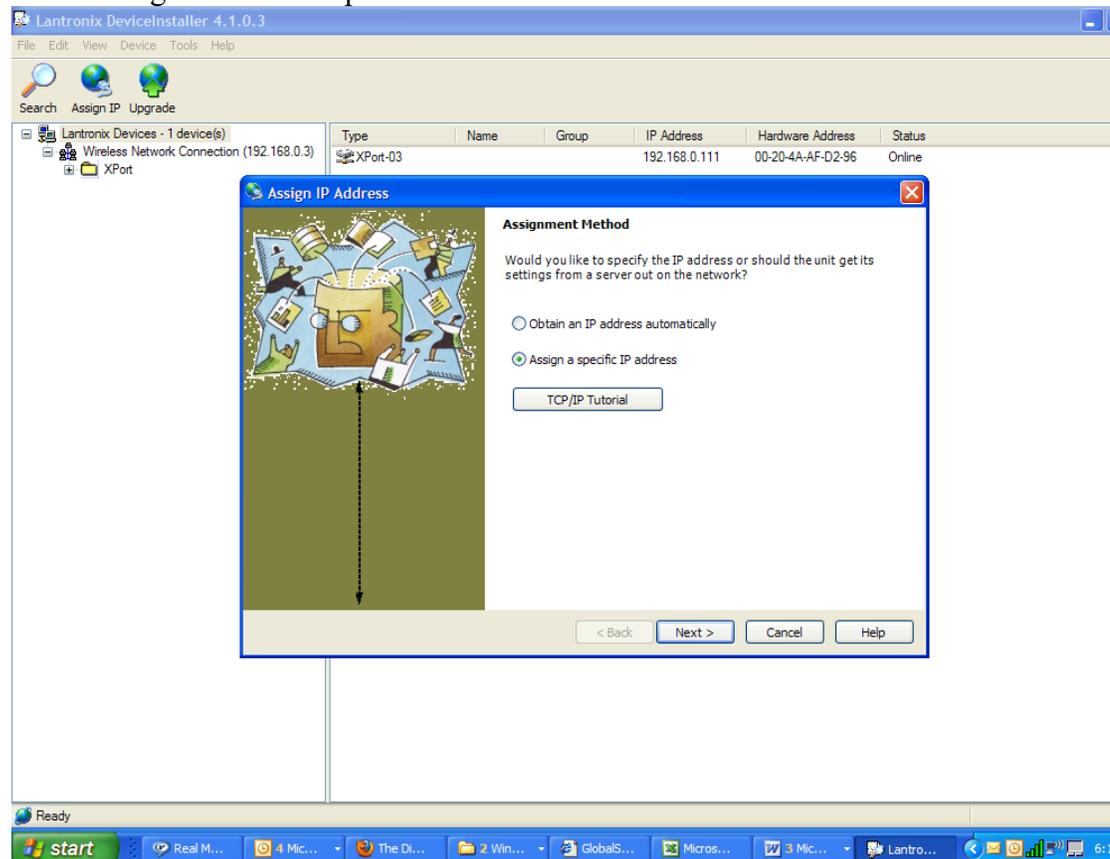http://www.digitalvacuumgauges.com/products/digivac-plot-software-sft.html

20. Troubleshooting notes:

a. You can get the latest version of Java at: http://java.com/en/download/index.jsp
b. If you feel you have set the IP address properly yet you are still unable to connect to the machine, trying using the command "ping" at the Dos command prompt to see if you can get to the IP address. Example: ping 192.168.1.192
c. If you feel everything is configured correctly, a simple way to verify this is to connect your computer's Ethernet RJ45 through the provided Ethernet crossover adapter to the model 200, and set your local IP address to 192.168.1.2, and your model 200 to 192.168.1.200 for example. Connected this way you'll be able to ping the model 200 and surf to the web page. If your model 200 still doesn't work, call Digivac!

21. Appendix
   a. Installing Software through the Ethernet configuration utility on the included CD
      i. Insert Disk into computer
      ii. Allow the Autorun, or double click "setup.exe" on the CD.
      iii. Follow the instructions to complete the software installation, and install any necessary dependencies (such as the .net framework)
   b. Setting the IP address via the Ethernet configuration utility
      i. Open up the "Lantronix Device Installer" application
      ii. Highlight the relevant Xport Device
      iii. Click "assign IP" in the top left corner
      iv.

v. Follow the steps on the screen.
c. The following are all the settings on a properly working xport:

```
MAC address 00204AAFD296
Software version V6.5.0.7 (070919) XPTEXE

Press Enter for Setup Mode


*** basic parameters
Hardware: Ethernet TPI
IP addr 192.168.0.111, no gateway set


*** Security
SNMP is                enabled
SNMP Community Name: public
Telnet Setup is        enabled
TFTP Download is       enabled
Port 77FEh is          enabled
Web Server is          enabled
Web Setup is           enabled
ECHO is                disabled
Enhanced Password is disabled
Port 77F0h is          enabled


*** Channel 1
Baudrate 9600, I/F Mode 4C, Flow 00
Port 10001
Connect Mode : C0
Send '+++' in Modem Mode enabled
Show IP addr after 'RING' enabled
Auto increment source port disabled
Remote IP Adr: --- none ---, Port 00000
Disconn Mode : 00
Flush   Mode : 80
Pack Cntrl   : 00


*** Expert
TCP Keepalive    : 45s
ARP cache timeout: 600s
CPU performance: Regular
Monitor Mode @ bootup : enabled
RS485 tx enable  : active low
HTTP Port Number : 80
SMTP Port Number : 25
MTU Size: 1400
Alternate MAC: disabled
Ethernet connection type: auto-negotiate
```

```
*** E-mail
Mail server: 0.0.0.0
Unit        :
Domain      :
Recipient 1:
Recipient 2:

- Trigger 1
Serial trigger input: disabled
Channel: 1
Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval  : 0 s


- Trigger 2
Serial trigger input: disabled
Channel: 1
Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval  : 0 s


- Trigger 3
Serial trigger input: disabled
Channel: 1
Match: 00,00
Trigger input1: X
Trigger input2: X
Trigger input3: X
Message :
Priority: L
Min. notification interval: 1 s
Re-notification interval  : 0 s
```