USING HYPERTERMINAL® PROGRAM TO COMMUNICATE WITH TSI® FLOWMETERS

APPLICATION NOTE FLOW-002

Application Note – April 5, 2001

This application note applies to all TSI flowmeters equipped with a mini-DIN connector.

HyperTerminal® is a utility RS-232 communications program that is bundled with most versions of Microsoft® Windows®. This program can be used to communicate directly with your TSI flowmeter to send RS-232 commands and to capture data from the device.

For common set-up commands, such as changing GAS calibration, changing ANALOG scaling, changing SAMPLING RATE, etc., we recommend using the program **"TSI SETUP"** which can also be downloaded from our web site free of charge. For these common tasks, TSI SETUP is much easier to use than HyperTerminal®.

http://flowmeters.tsi.com

If you need to capture data or if you need to send some special instructions to your flowmeter, you will need to use HyperTerminal® or a similar communications program.

COMMAND SET

- For flowmeters equipped with an LCD display, see the RS-232 Serial Command Set manual supplied with your flowmeter for the RS-232 commands. This can also be downloaded from our web site.

- For OEM flowmeters not equipped with an LCD display, see the Design Guide for your device. These can be downloaded from our web site.

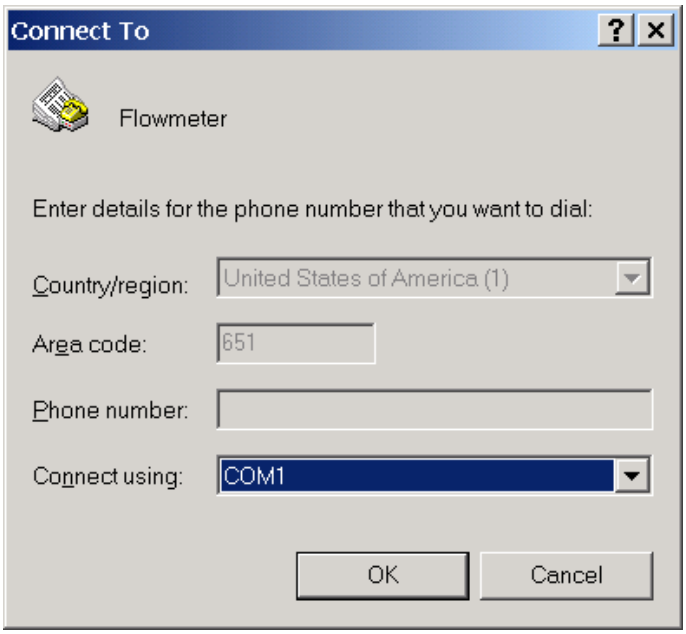
Setting up HyperTerminal® to Work with TSI Flowmeters.

Windows® 98 Users: Some versions of HyperTerminal® supplied with Windows® 98 have a bug. It will not echo typed characters even if the "*Echo Typed Characters Locally*" box is checked. You can download an updated version from Hilgraeve (the HyperTerminal supplier) at no cost. The free upgrade is called "HyperTerminal Private Edition". The upgrade is self-installing and does not upset existing icons or HyperTerminal configuration files.
http://www.hilgraeve.com

1. Start the HyperTerminal® program. It is normally located in the Programs | Accessories | Communications section of the START menu

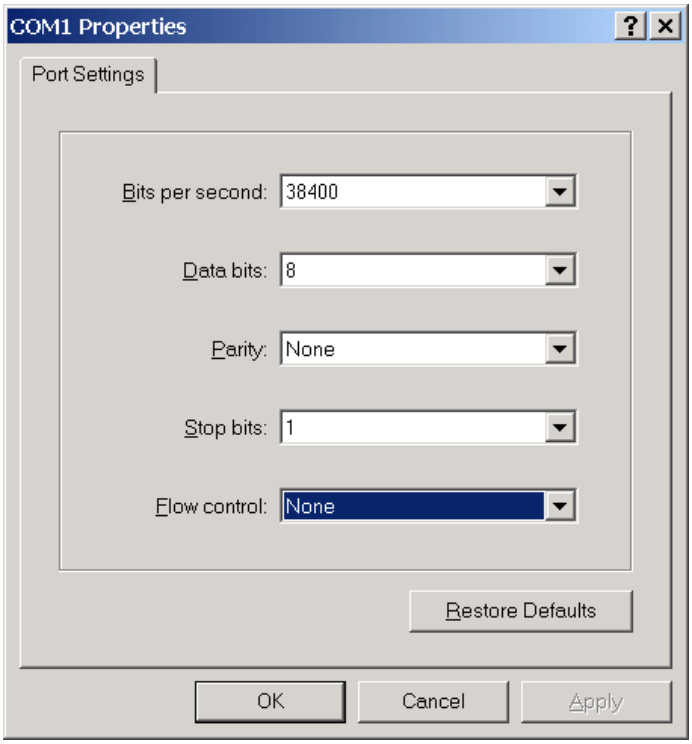
2. You will be prompted for a name and icon for HyperTerminal® program's setup configuration. Once saved, this configuration can be recalled in future sessions. We suggest a name of "Flowmeter" and an icon of your choice. Click **OK.**

3. Select the desired COM port from the “Connect using” menu. Click **OK**.

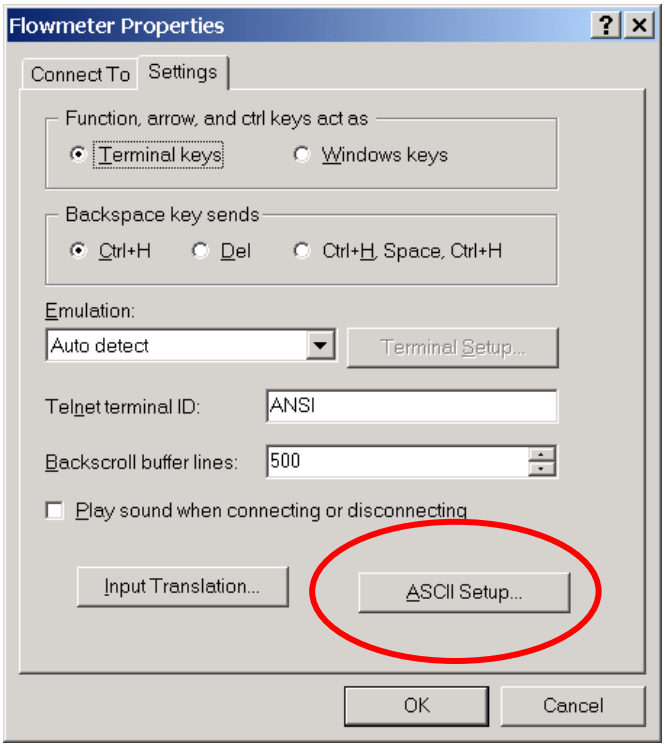


4. Select Port settings as shown below. Click **OK**.

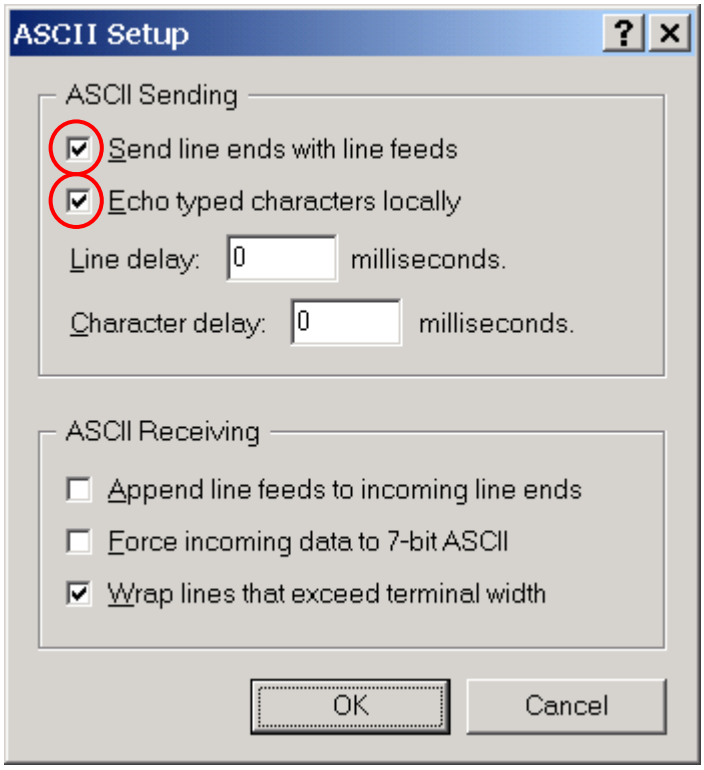
Bits per second: 38,400
Data bits: 8
Stop bits: 1
Flow control: None



5. From the FILE menu at the top of the screen, select **PROPERTIES**. Click on **SETTINGS**. Then click on **ASCII Setup**.



6. Make ASCII Setup selections as shown below, then click **OK**.



7. Connect the RS-232 connection to your flowmeter and then turn on the flowmeter's power switch. You should now be "live" to the RS-232 connection. Check the connection by sending the PING command:

   ? <CR> The flowmeter should respond with **OK**.

   The flowmeter should be turned on **AFTER** HyperTerminal® is set up and AFTER the RS-232 cable is connected. If you see problems, turn the flowmeter off and then on again.

8. The screen below shows a few basic commands in a sample session with a TSI model 4140 flowmeter.

Remember that all commands are case-sensitive