

Using HyperTerminal® Program to Communicate with TSI® Flowmeters

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.

Hyperterminal is a registered trademark of Hilgraeve, Inc. TSI is a registered trademark of TSI Incorporated. Microsoft and Windows are registered trademarks of Microsoft Corporation.



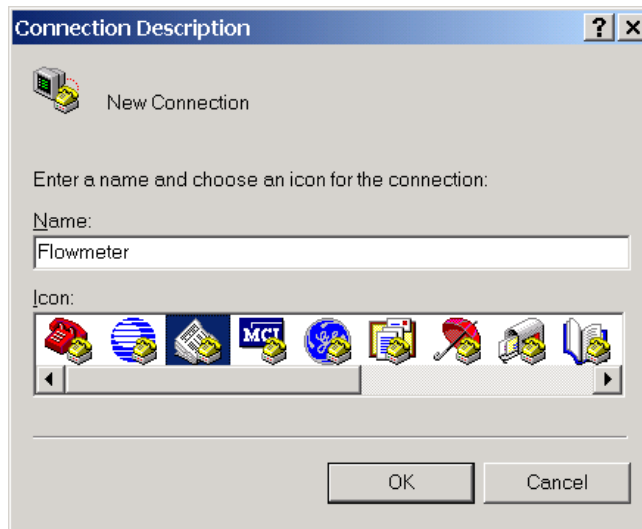
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Setting up HyperTerminal® to Work with TSI Flowmeters.

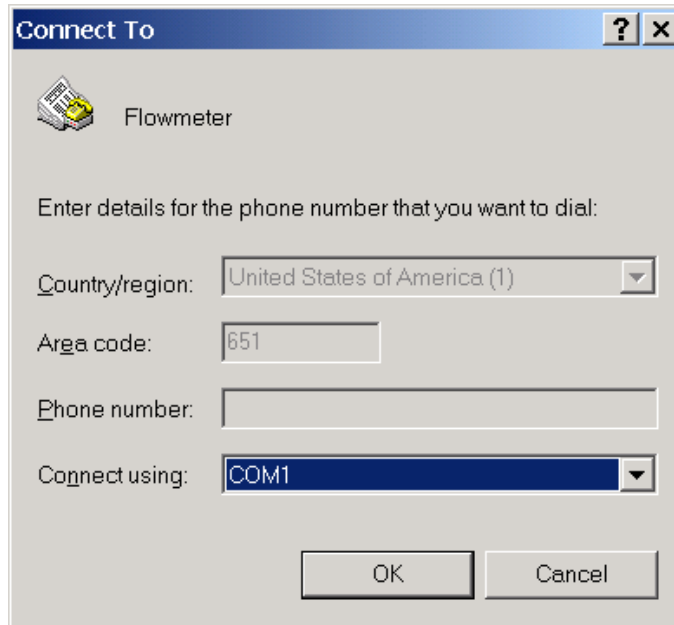
Windows® 98 Users: Some versions of HyperTerminal® supplied with Windows® 98 have a bug. It will not echo typed characters even if the “*Echo Typed Characters Locally*” box is checked. You can download an updated version from Hilgraeve (the HyperTerminal supplier) at no cost. The free upgrade is called “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**.



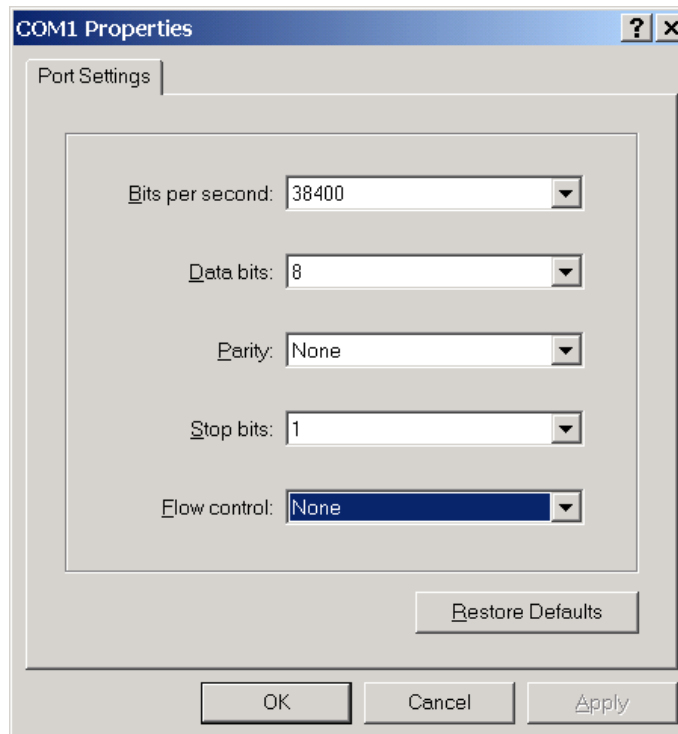
4. Select Port settings as shown below. Click **OK**.

Bits per second: 38,400

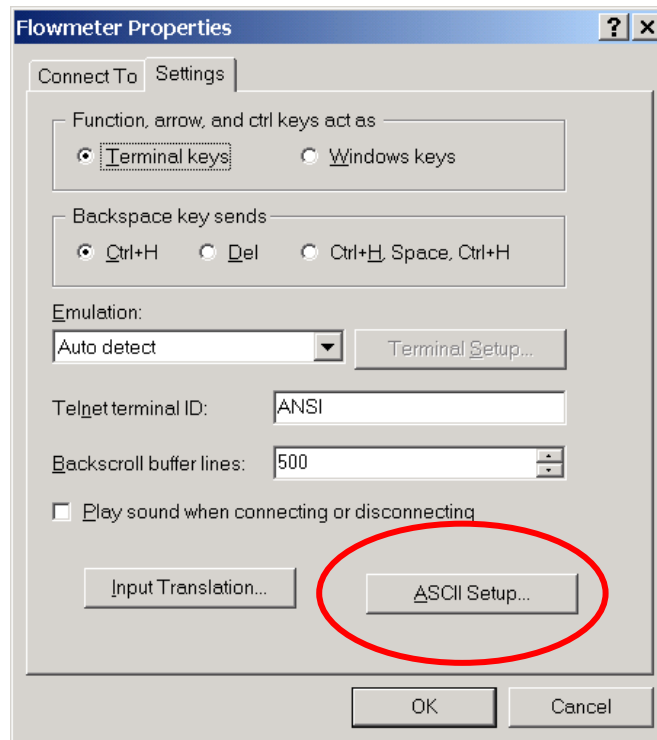
Data bits: 8

Stop bits: 1

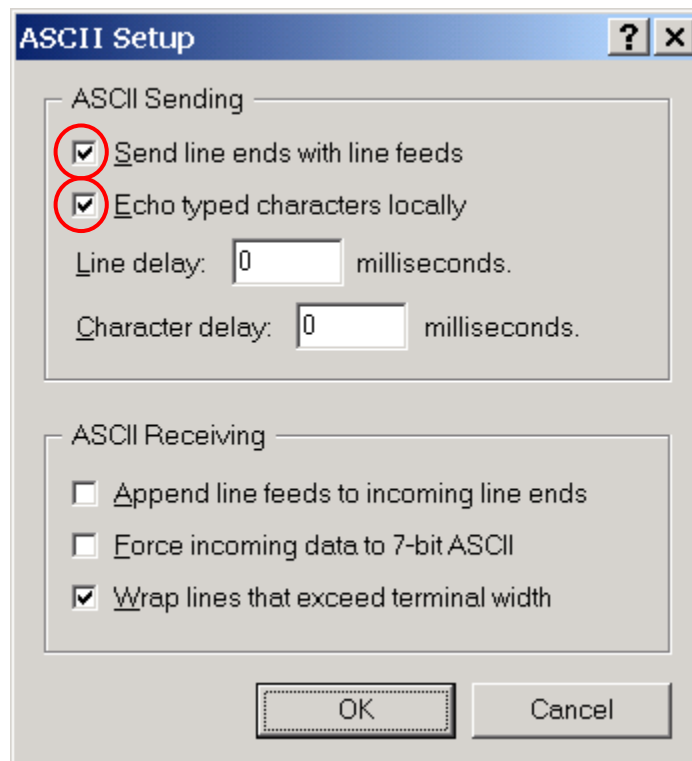
Flow control: None



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

```
Flowmeter - HyperTerminal
File Edit View Call Transfer Help
?
OK
SG1
OK
DCFTP0005
OK
1. 476, 23. 61, 99. 18
1. 543, 23. 59, 99. 17
1. 597, 23. 59, 99. 18
1. 726, 23. 56, 99. 17
1. 655, 23. 53, 99. 17
DATE
OK
1/2/01
SN
OK
41400048004
Connected 0:01:55 Auto detect 3B400 8-N-1 SCROLL CAPS NUM Capture Print echo
```

TSI Incorporated – 500 Cardigan Road, Shoreview, MN 55126 U.S.A

USA	Tel: +1 800 874 2811	E-mail: info@tsi.com	Website: www.tsi.com
UK	Tel: +44 149 4 459200	E-mail: tsiuk@tsi.com	Website: www.tsiinc.co.uk
France	Tel: +33 491 11 87 64	E-mail: tsifrance@tsi.com	Website: www.tsiinc.fr
Germany	Tel: +49 241 523030	E-mail: tsigmbh@tsi.com	Website: www.tsiinc.de
India	Tel: +91 80 41132470	E-mail: tsi-india@tsi.com	
China	Tel: +86 10 8260 1595	E-mail: tsibeijing@tsi.com	
Singapore	Tel: +65 6595 6388	E-mail: tsi-singapore@tsi.com	



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