

PC USB INTERFACE

April 20, 2015

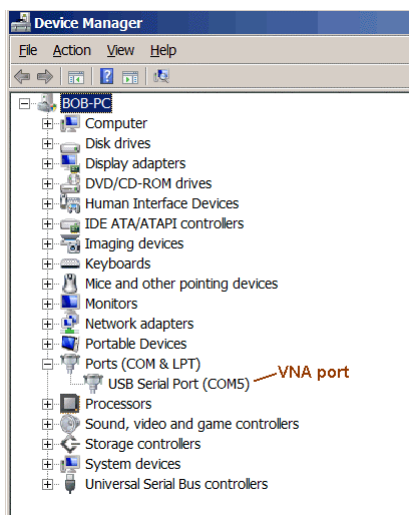
The following information applies to the **VNA2180**, **VNAuhf** and all members of the **AIM4170** family.

Connect one end of the USB **cable** to the VNA (or AIM) and the other end to a USB port on your PC. You may need a new USB driver. (Many computers will already have the appropriate driver.) The USB interface chip used in the VNA2180, VNAuhf, AIMuhf and AIM4170D is made by FTDI (www.ftdichip.com). If you are using an external usb adapter with the AIM4170 or the PowerAIM120, be sure it employs the FTDI chip. These adapters cost a little more but they are much more dependable than lower cost adapters. Good adapters are usually around \$10 to \$20 while low cost adapters may be only \$5. Off-brand adapters may work with early versions of Windows but they often do not work with Win 7 and Win 8. The recommended driver for several versions of Windows is 2.04.16 (as of 2010). A link to it is on this page:

<http://www.ftdichip.com/Drivers/VCP.htm>

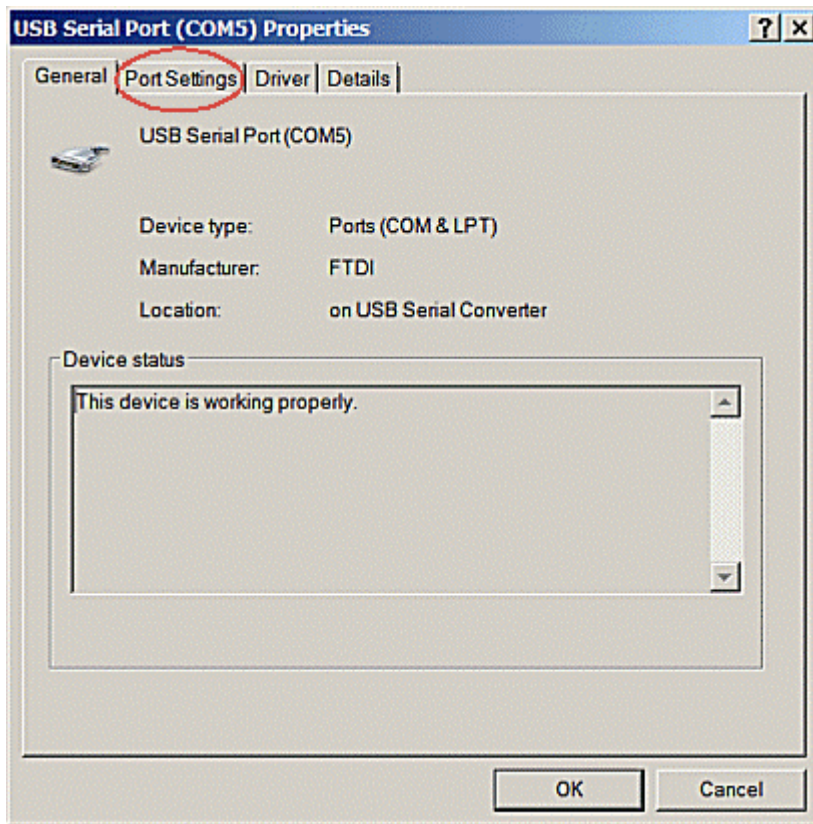
The installation process is easier if your computer is connected to the internet at the time you first plug in the USB cable, Windows XP, Vista, Win 7 and Win 8 can often find the driver automatically on the internet. This may take two or three minutes.

After the driver is installed and it has assigned a port number to the VNA or the AIM, use the Windows Device Manager to find the comm port number. Click "**Start**" in the lower left corner of the screen, then click "**Control Panel**", "**System**", "**Hardware**", "**Device Manager**". The comm port number will be shown in a list of i/o ports similar to this:

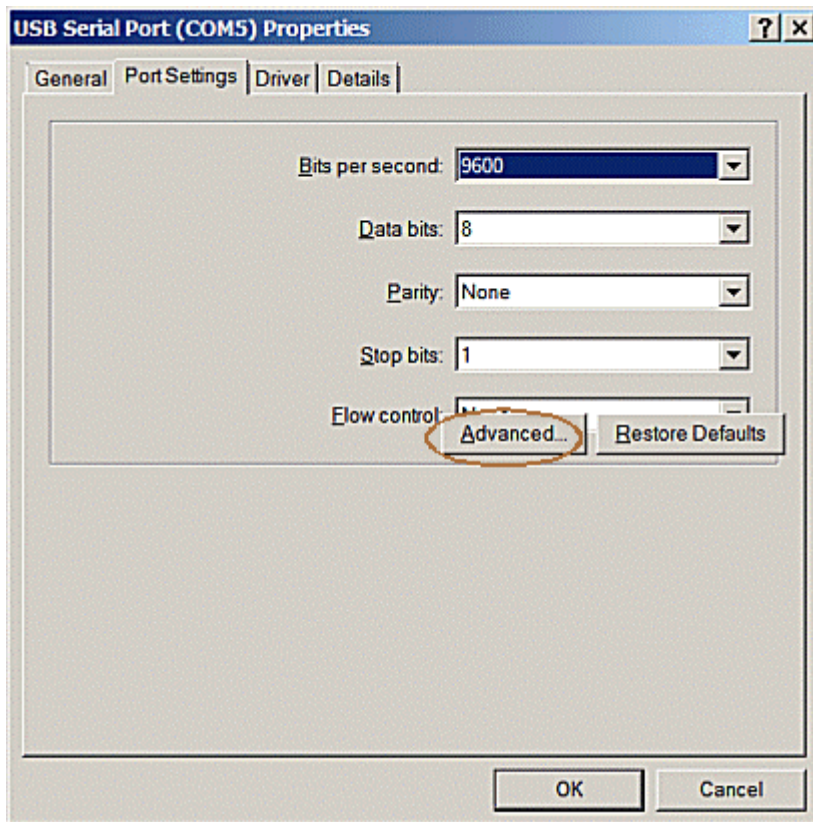


Under the VNA **Setup** menu tap at the top of the VNA program screen, click on **Enter Comm Port** and enter the port number that was assigned by Windows. This number will be saved in the init file for this instrument. The default comm port number is usually in the range of 3 to 10, although it can be over 200.

The usb interface can be customized for improved performance. Double click on the line that says "USB Serial Port (COMxx)". The **General Properties** dialog will pop-up:

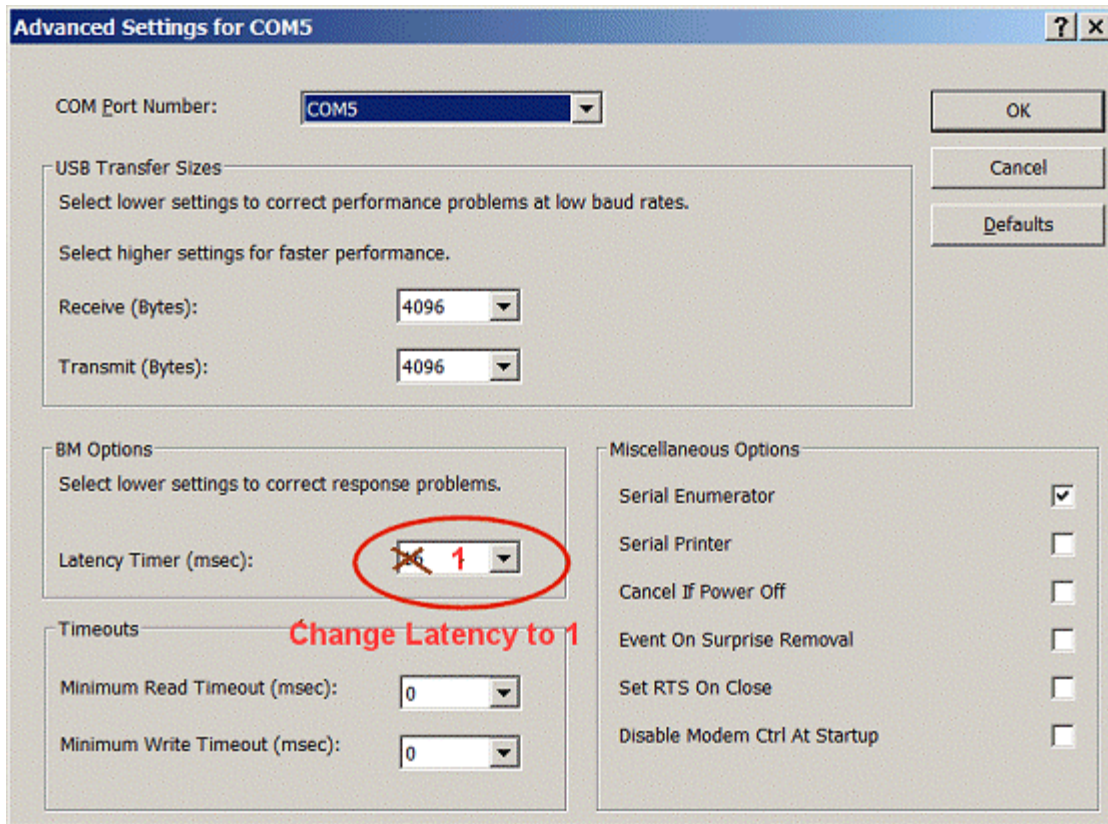


Click on the tab that says "Port Settings".



**The default parameters in this dialog box are okay.
The PC driver ignores the baud rate.**

Click on the button labeled "**Advanced**" (this button may be overlapping the Flow Control edit box). Click on the outer edge of the Advanced button.



The COM Port Number can be changed, if desired. **Make a note of this number.** This is the value that will be entered into the VNA program for the comm port using the **Setup** Menu. Change the parameter called "Latency Timer" from 16 to 1. This will speed up the communication. On some computers this Latency option does not appear. The default value will be ok.

It has been found that sometimes the computer operating system will say the USB driver is properly installed when it really isn't. Deleting the driver and then starting over and specifying that the driver must be reloaded from the CD may work. Sometimes, deleting the device manager for this port and then plugging the cable back into the computer will cause the PC to reinstall the correct driver.

Check this web page for the latest information on the interface:

www.w5big.com/FAQ.htm

The VNA (and the AIM) programs has been used with Windows 2000, XP, Vista, Windows 7 and Windows 8.1. They have also been used with the MAC.