Solving Problems using USB

This document is intended for Adam balances with USB connections/sockets. Typical installation will see you install the USB driver (either supplied on a disc with your scale or downloadable from http://www.adamequipment.co.uk/uk/drivers) & then plug the USB cable into your computer/scale. MS Windows should report that it has found a USB device and configured it – usually displaying a pop-up notification to that effect.

The scale uses a virtual serial com port over the USB connection. You can check that the scale is connected and working by looking at the Windows Device Manager (found under Control Panel, System, Device Manager in MS Windows XP & similar in other variations of MS operating systems).

You should see the virtual com port connection under Ports, see example below:
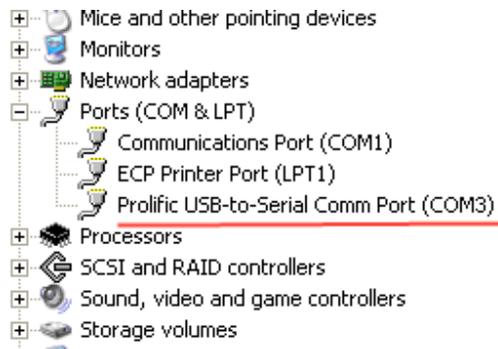
Note: the name of connection "Prolific USB-to-serial" in the above example varies per scale.

This should also list the virtual com port number it is using (COM3 in the example above). If it does not show up under ports or there is a "yellow exclamation" symbol next to it then there is a problem with the driver, the USB connection/cable or the scale. If there is a "red cross" next to it – this could mean the device is disabled, try right clicking on the USB connection/virtual com port and enabling it.

Assuming all is ok so far then you can perform a basic communication test to make sure data is flowing correctly from the scale to the computer. A program like HyperTerminal on MS Windows XP can be used, though this program is not included on later operating systems like MS Vista & Windows 7. Alternatively you can use a free program like Putty.

## Typical HyperTerminal Setup for a basic test:

Launch HyperTerminal:

Set the com port to the virtual com port of your USB/virtual com port – COM3 in this example. Next set the Baud settings, typically 4800 Bps, 8 data bits, no parity and 1 stop bit for most ADAM scales (though not all, so you need to check the user manual's RS232 Section to find out how to check the settings inside your scale/balance.
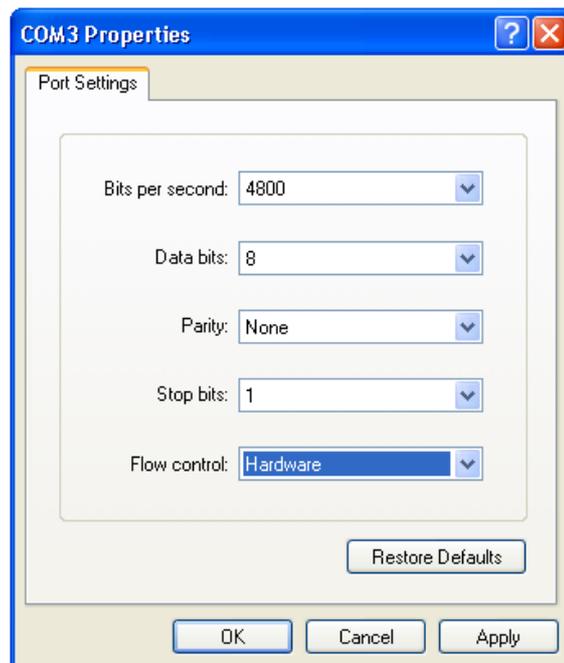
Once the HyperTerminal settings have been entered you should try pressing print on the scale/balance/indicator etc and hopefully you will see a reading appear in HyperTerminal like below (Note: the scale output varies considerably per model but as long as you can see something that resembles the reading from the scale it should be working, you may also see lots of extra information depending upon the model, that is not displayed on the scale's screen – that is ok).
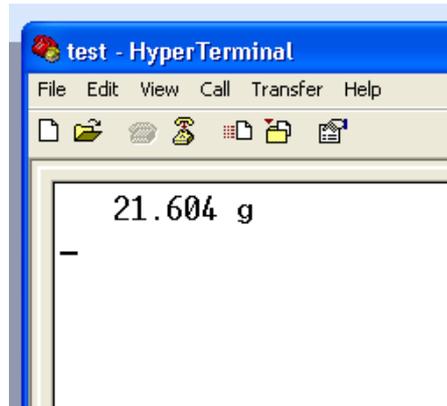

Typical Putty setup for a basic test:

Download and install the free program Putty from:
http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

There are multiple versions to download, the simplest one to download/install is the "Windows installer" version. Download and install using the default options. Launch the Putty program. Change the Putty configuration screen so "connection type" is set to "serial". Then enter the com port in the "Serial Line" box (this is the same as your USB/virtual com port) COM3 in this example
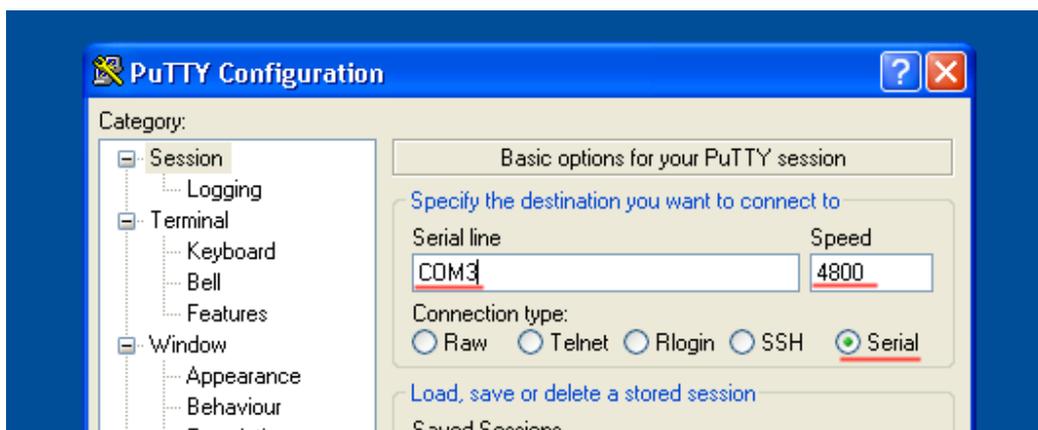
Next set the Baud/speed setting, typically 4800, 8 data bits, no parity and 1 stop bit for most ADAM scales (though not all, so you need to check the user manual's RS232 Section to find out how to check the settings inside your scale/balance. The flow control can be left at its default.
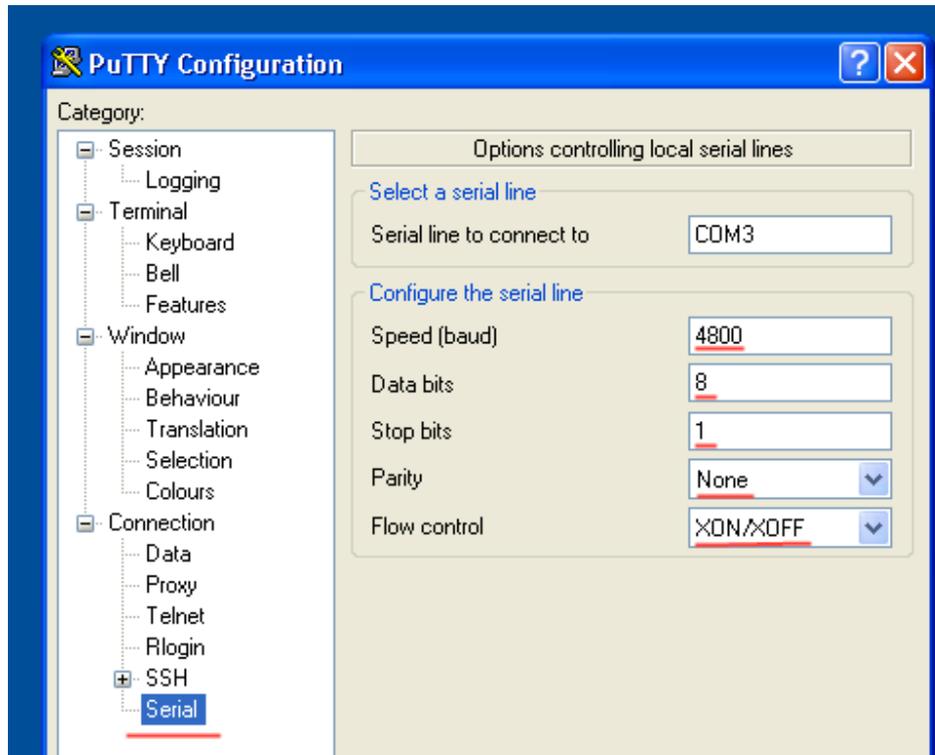
Click open and you should get a black window open.

You should try pressing print on the scale/balance/indicator etc and hopefully you will see a reading appear in Putty window like below (Note the scale output varies considerably per model but as long as you can see something that resembles the reading from the scale it should be working, you may also see lots of extra information depending upon the model, that is not displayed on the scales' screen – that is ok).
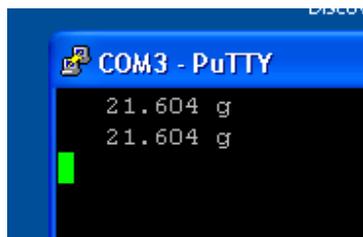

Interpreting the Test Results:

If you see lots of characters that look nothing like the reading on the scale for example:

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\x%31\v\n&€o\x%32\x%31\x%31|\x%31\x%33\x%31\x%31
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This usually means you do not have the com port/baud settings correctly matched between the scale and Putty/HyperTerminal, you need to recheck the settings in the scale & Putty/HyperTerminal – they must match.

If you see nothing appear in the Putty/HyperTerminal screen then again this usually means you do not have the com port/baud settings correctly matched between the scale and Putty/HyperTerminal, you need to recheck the settings in the scale & Putty/HyperTerminal – they must match.

The data is readable in the Putty/HyperTerminal window - this means the basic communications test is now complete, your USB connection appears to be working OK. You should now be able to use the scale with other software like the ADAM DU Data Utility for collecting and analyzing readings from ADAM Balances & scales. See www.adamdu.com for more information about this program.

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