

Trouble shooting IL1700/ILT1700 software connection.

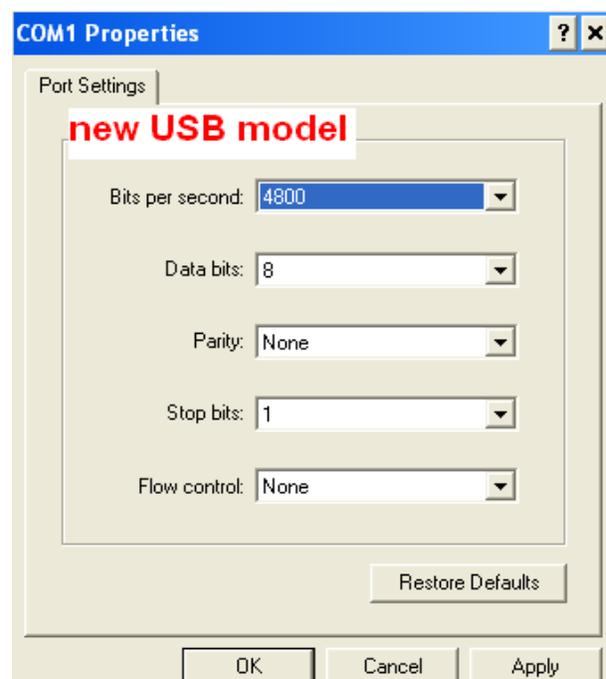
First consideration is the cable. Direct connections are best (single cable, 2 connectors, same pin numbers). Try to limit adapters and converters as some can cause errors.

Older IL1700 meters have a 25 pin RS232 cable. You must use an RS232 cable. You can use 25 pin to 9 pin if your computer has a 9 pin. Some adapters(25 to 9 pin)will work. NOTE: We have not had success with RS232 to USB cables on older units. It most likely will not work with a RS232 to USB adapter. If your serial number is 2554 or higher, you can upgrade the system to include USB and a 9 pin RS232. Upgrades are not available for older units with lower serial numbers. A new meter would need to be purchased)

New ILT1700 meters have a 9 pin RS232 and a USB port on the back panel. If you will connect via RS232, use an RS232 9 pin to RS232 xx pin (Find pin # on the computer com port). For USB, use a USB printer cable. It is best not to use cables that swap RS232/USB. Some may work, but no testing has been done for this by ILT.

Before you try using the software it is best to test your basic connections. To do this connect the meter to your computer. Power up the meter. Select you cal factor. Cover the sensor, press zero. In the start menu select Programs, Accessories, Communications, HyperTerminal(for non windows based programs us the available terminal program). Name your file when asked then hit OK. Select the com port you plugged into on your computer, from the drop down menu (I use COM1). If you are using an newer USB version meter, set Bits per second (Baud Rate) to 4800, for an older RS232 25 pin model meter set it to 1200.

Data bits stays at 8, parity none, stop bits 1, and Flow control is none. Click apply, click OK



The terminal should immediately display the readout as shown on the meter displays.(reading and exponent) Cover sensor and hit zero. Display should change to 0.00 and the exponent should go lower ie -8 or -10 etc. Uncover the sensor, and readings should go back to normal. Press hold. Your readings

should continue to be the same as when hold was pressed and should match the reading on the meter. Press the data/factor display button, you should now see the calibration factor you were using. Press the factor select button and toggle through your stored calibration factors. The display should show each factor followed by an F

+1.000e+0 F  
+5.11e-2 F  
+1.717e-1 F etc

Press data display again. The data light should illuminate on the meter and your readings should again match the readings on the meter display. Test for changes by moving the sensor around or placing an object in front of the sensor to assure readings vary and continue to change exactly the same on the meter and computer display.

+1.306e-6  
+1.306e-6  
+7.01e-7  
+4.37e-8  
+3.13e-9  
+2.97e-7  
+8.64e-7  
+1.231e-6  
+1.277e-6  
+1.232e-6

Test your zero.

1. Enter a cal factor of 1 e +0, return to data, cover sensor, press zero, you should get a zero exponent reading of e-11.
2. Return to your stored cal. factor. With the sensor exposed to light, press zero. The exponent will be higher.
3. When the zero is complete, and the DC is illuminated, cover the sensor . You should see negative readings on the display.

Sample readings:

+05.11e-2 F (SELECT FACTOR)  
+1.717e-1 F  
+0.00e-5 (ZERO TO AMBIENT LIGHT, UNCOVERED SENSOR)  
+0.00e-5  
-0.45e-5 (COVER SENSOR AND SEE NEGATIVE READING)  
-0.73e-5  
+0.00e-6 (DARK ZERO, SENSOR COVERED)  
+0.00e-10  
+0.00e-10  
+3.60e-6 (RETURN TO DC AND SEE READINGS)  
+7.35e-6  
+7.35e-6.....

Now you know your meter is fully functional and working with the cable you have selected. Now it is time to test out the software. Remember when using the software to select com port 1 and the correct baud rate.