

User Guide for DI-1000/DI-1000UHS Standalone Use

Connecting your sensor to the DI-1000U/DI-1000UHS

- 1) Connect your load cell, torque sensor or other compatible sensor (output in the -2V to +2V range at most) to the Terminal Block on one end of the load cell
- 2) Note that the jumper pins are already wired for the load cells and torque sensors of the 4 wire (E+, E-, S+, S- plus shield) kind. The label on the bottom of the unit tells you how to wire the sensors into the terminal block

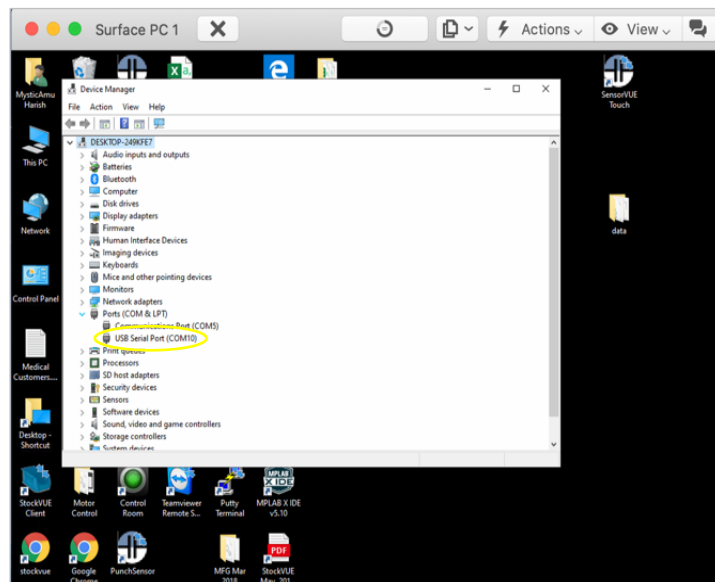
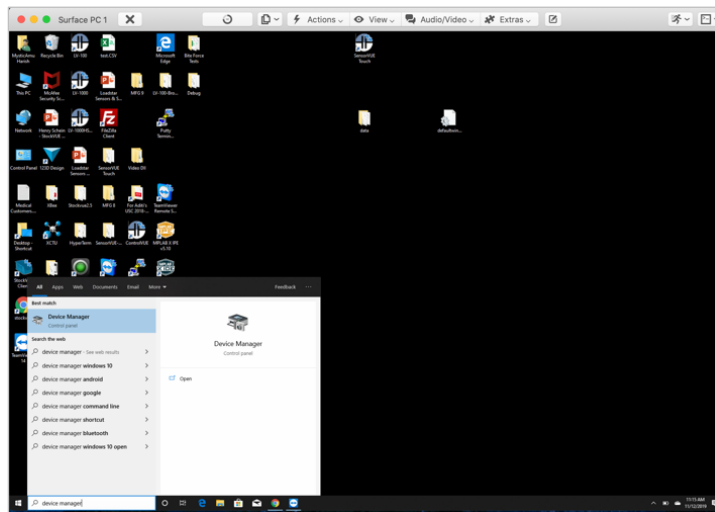


Installing Drivers

- 1) Download and install the drivers for the device from either the LV-100 or LV-1000 USB Drive provided or else from [loadstarsensors.com](https://www.loadstarsensors.com) under the support menu option:

<https://www.loadstarsensors.com/drivers-for-usb-load-cells-and-load-cell-interfaces.html>

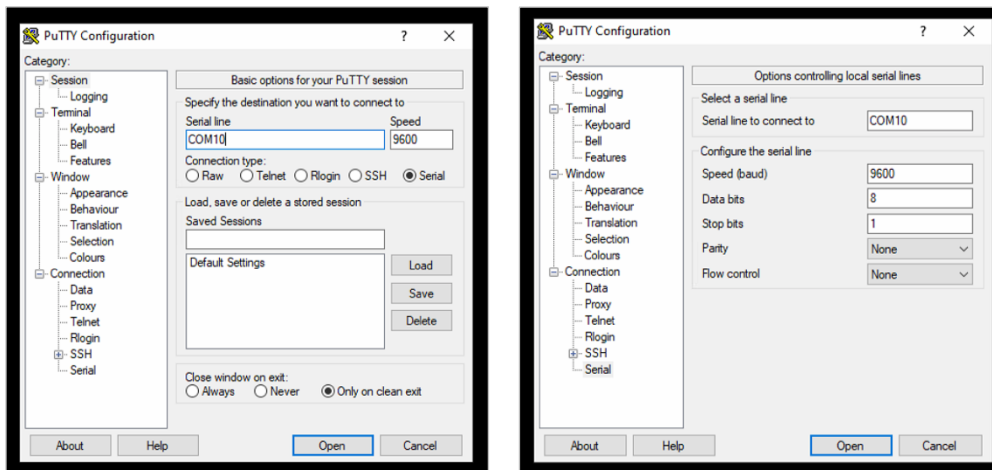
- 2) Once you install the driver, connect the UBSA connector into the PC/Tablet's USB port
- 3) Open **Device Manager** utility on your PC and take a look under Ports section. Once you connect the USBA connector of the DI-1000U into the USB port you will see it show up as a virtual Serial COM port e.g. COM3 or COM5 etc.



- 4) You are now ready to go to the next step

Install Terminal Emulator Program

- 1) Ideally if you have LoadVUE Pro (LV-1000) software you'll be able to get this device ready to use much quicker and more easily. LV-1000 costs just \$199 and has a GUI driven interface to calibrate and burn parameters for your particular load cell.
- 2) Else, Find, download and install PUTTY (from <https://www.putty.org/>) or HyperTerminal from the web onto your PC/Tablet



- 3) Open a new connection and connect to the DI-1000U/DI-1000UHS with the following settings:
 - a. Baud Rate: 9600 (for DI-1000U) Or 203,400 (for DI-1000UHS)
 - b. Data Bits: 8
 - c. Parity: N
 - d. Stop bits: 1
 - e. Flow Control: N
- 4) Once you connect, hit a couple of "Enter" or "Carriage Returns" to get 'A' as acknowledgement that it is connected. Enter "SETT" to see current settings.

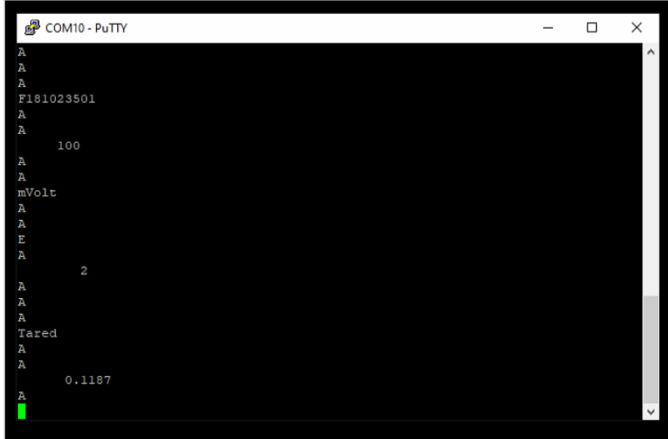


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COM10 - PuTTY
A
Model - DI-1000
Type - F181023501
ID - F181023501
Version 6.0
Units - LB
Load Capacity -      20
Gain - 64
Samp Per Sec -      120
Calibration Set - CUBIC
mVolt -      3
2pCAL -      -1,      -1,      0
nCal - 1
Direction 1
0.000000
0.000000
0.000000
0.000000
Averaging
CLA (Band): 4.9999990e-02 % ( 9.9999971e-03)
CSS (Window Size): 1
CSF (Scale Factor): 1.0000000
LastTare =      4810
  
```

Enter Calibration Information & Start Using!

- 1) If your manufacturer has provided a mV/V value for your load cell or torque sensor:



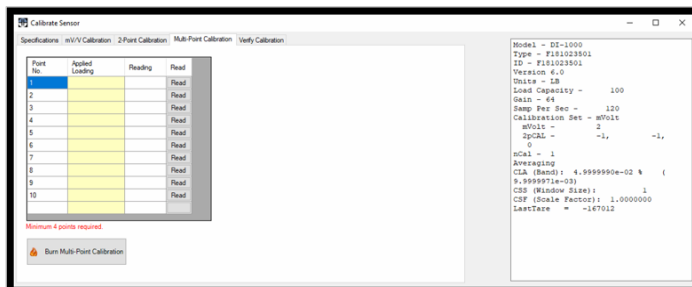
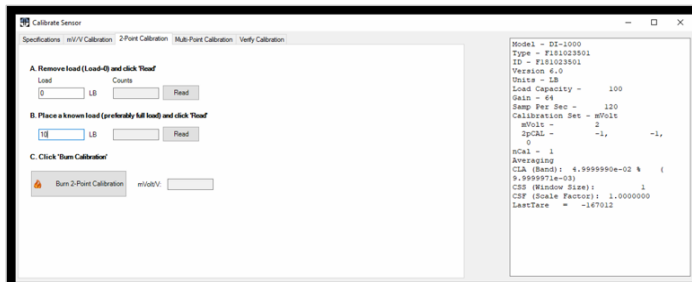
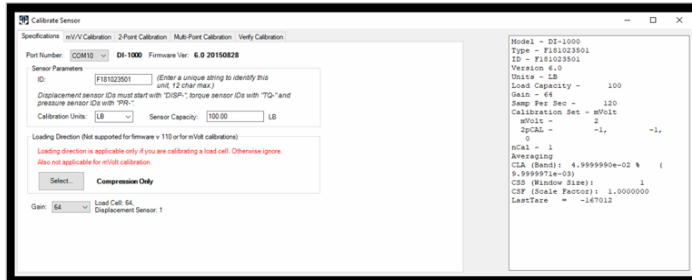
```
COM10 - PuTTY
A
A
A
A
F181023501
A
A
A
100
A
A
mVOLT
A
A
E
A
A
2
A
A
A
A
Tared
A
A
A
0.1187
A
```

- a. First enter an ID for your device as follows:
 - i. ID <Up To 10 digit alphanumeric identifier> for e.g. ID F191212345
- b. Next enter units “LB” for pounds or “kg” for kilogram, “g” for gram or “N” for Newtons
 - i. UNITS LB
- c. Next enter capacity “LC”
 - i. LC 100 (for 100 lb load cell)
- d. If you have mV/V number then enter CAL m (to specify the unit to use mV/V calibration) followed by the actual value (usually 2 mV/V typically for the most common load cells)
 - i. CAL m
 - ii. MVOLT 2.000
- e. At this point you are ready to check and use the load cell in digital mode
- f. Make sure the load cell is mounted properly and that it is unloaded (no load placed on it). In this condition send the Tare command
 - i. TARE
- g. Then send the W command to get calibrated force value (weight) in lbs once:
 - i. W
- h. If you want to continuously read the values, then send the WC command instead:
 - i. WC
- i. To stop the values from being printed hit ENTER or CARRIAGE RETURN
- j. For help at any point send the “?” command



- 2) If you do not have a mV/V number then after a,b,c above, use 2 point calibration by entering the following command:
- a. Cal 2
 - b. 2pCAL <load to be used to calibrate> e.g. 2pCAL 10 (to calibrate between 0 and 10 lbs)
 - c. The program will prompt you to make sure there is zero load and then press "C" to continue
 - d. Then it will prompt you to place the 10 lbs of load on the sensor and then press "C" to continue. Then device will calculate and store the calibration coefficient in the DI-1000U.
 - e. Then resume the commands from f onwards to Tare and Read the calibrated values from your sensor

3) All of this will be much easier if you purchase the LV-1000 software from us for just \$199!





- 4) For additional information, please check out our online documentation for DI-1000U here:

<https://www.loadstarsensors.com/user-manuals-and-technotes.html>

<https://www.loadstarsensors.com/assets/specsheets/di1000.pdf>

<https://www.loadstarsensors.com/di-100u-di-1000u-command-set.html>

https://www.loadstarsensors.com/assets/manuals/di-1000_user_manual.pdf

If you need help or assistance to properly install and use your device, please email us at support@loadstarsensors.com and we will get back to you asap.