

Loadstar Sensors

Quick Start Calibration for DI-1000, DI-1000Z and DI-1000ZP

1. If you have purchased LoadVUE, install LoadVUE. This will also install the drivers needed. If you do not have LoadVUE, use the Drivers CD to install the drivers.
2. Check the cable connections from the load cell to the DI-1000 unit to make sure the connections are tight.
3. **The DI-1000U is powered by the USB and does not need external power.** If you have a DI-1000Z or DI-1000ZP, then connect the power supply **first**.
4. **Then** connect one of the following:
 - If the unit is not wireless enabled, connect the USB cable between the computer's USB port and DI-1000 unit.
 - If your DI-1000 is wireless enabled (Z or ZP models), first connect the power supply to the DI-1000Z or ZP unit. Then connect the XBee USB Adapter to the computer's USB port.

You could also use the wired connection to calibrate and then switch to wireless connection during operation.

Step 4 will add a USB Serial Port entry to the Device Manager.

5. Use Hyperterminal program to establish communications with the DI-1000. See the document "*Driver Installation and Hyperterminal Operation of iLoad Digital USB Sensors and Interface Devices*". (The default baud rate is 9600.) Press <Enter> in Hyperterminal and you should get a response 'A'.
6. To calibrate using mVolt/V type the following commands in sequence in Hyperterminal. Commands are not case sensitive. For example, to calibrate a 250 lb load cell with a 3.02 mVolt/V rating:
 - **UNITS LB**
 - **LC 250**
 - **CAL m**
 - **MVOLT 3.02** (*This number will be available from the load cell calibration/specification certificate.*)
 - **TARE** (*this zeros out the load*)
 - **WC** (*this will continuously output the load in lb. Change the load and ensure that the output changes.*)

7. To calibrate using a known weight type the following commands in sequence. Commands are not case sensitive. For example, to calibrate a 250 lb load cell using a known load of 100 lb, remove all load from load cell and type:

- **UNITS LB**
- **LC 250**
- **CAL 2**
- **2PCAL 100**
<Apply Point 1 Load of 0 LB Press C when ready or Q to quit> **C**
<Apply Point 2 Load of 100 LB Press C when ready or Q to quit> *Apply 100 lb, then type C*
- **TARE**
- **WC** (*this will continuously output the load in lb. Change the load and the output should change. Type <Enter> to stop the continuous output.*)

8. To calibrate a load cell in kg using mVolt/V type the following commands in sequence in Hyperterminal. Commands are not case sensitive. For example, to calibrate a 250 kg load cell with a 3.02 mVolt/V rating:

- **UNITS KG**
- **LC 250**
- **CAL m**
- **MVOLT 3.02** (*This number will be available from the load cell calibration/specification certificate.*)
- **TARE** (*this zeros out the load*)
- **WC** (*this will continuously output the load in kg. Change the load and ensure that the output changes.*)

9. To calibrate a load cell in kg using a known weight type the following commands in sequence. Commands are not case sensitive. For example, to calibrate a 250 kg load cell using a known load of 100 kg, remove all load from load cell and type:

- **UNITS KG**
- **LC 250**
- **CAL 2**
- **2PCAL 100**
<Apply Point 1 Load of 0 KG Press C when ready or Q to quit> **C**
<Apply Point 2 Load of 100 KG Press C when ready or Q to quit> *Apply 100 kg, then type C*
- **TARE**

10. **WC** (*this will continuously output the load in kg. Change the load and the output should change. Type <Enter> to stop the continuous output.*)