

Windows USB Connectivity

Pulsar Instruments

Technical Note: No 1



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Windows USB Connectivity

Introduction

If you are using a Windows PC and you are using a USB connection to download measurements, you may need to update the drivers to allow your software to communicate with your instrument.

The information in this Technical Note covers the main instrument ranges and software packages and the steps needed to upgrade or update existing drivers.

Please note that the installation of the any drivers must be carried using Full Administrator Access Rights.

If you do not have Full Administrator Access Rights, you will not be able to update or install the required drivers.

If you have any questions about the access rights available to you, please contact your IT support.

The information contained in this document is correct as of the 21th April 2016.

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Assessor and Quantifier Sound Level Meters

Driver Update

The Assessor and Quantifier instruments use an FTDI Driver which is supplied with the Analyzer software installation CD and as part of the software download.

To update the driver:

1. Download the latest driver from the chipset manufacturer website.

Click here to download the latest driver. This is available as an executable file (.exe) or a ZIP file.

http://www.ftdichip.com/Drivers/CDM/CDM20814_Setup.exe

http://www.ftdichip.com/Drivers/CDM/CDM20814_WHQL_Certified.zip

2. Disconnect the sound level meter from the PC and close the Analyzer software program completely.
3. Run the driver installation program downloaded in step 1.
4. When the installation is complete, connect the sound level meter to the PC. Windows will detect the new hardware and install the new driver. Analyzer will now be able to connect to the sound level meter.

Troubleshooting

The steps detailed above will install the correct Windows driver for the Assessor or Quantifier sound level meters. When the sound level meter is connected to the PC, if Windows cannot find or install the driver, your sound level meter may need an upgrade.

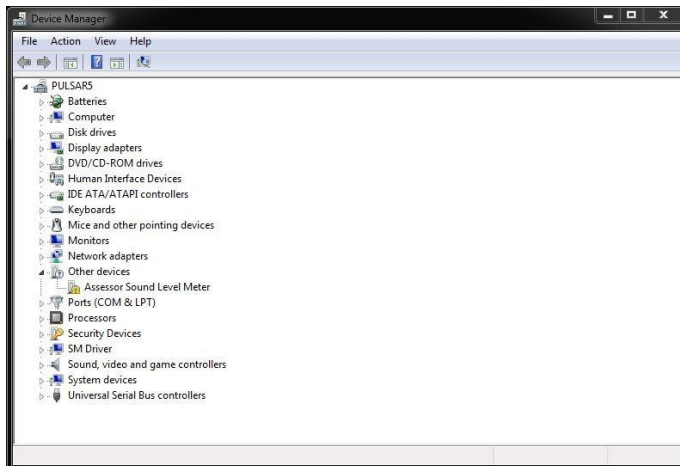
Some older sound level meters have a different USB driver in their internal software that is not fully compatible with Windows Vista, Windows 7, Windows 8 and Windows 10. This may prevent the new driver from correctly identifying the meter.

Diagnostics

The sound level meter identifies itself to Windows using a USB Device PID&VID. This is shown in the Properties sheet for the meter in the Device Manager, as shown in the example below.

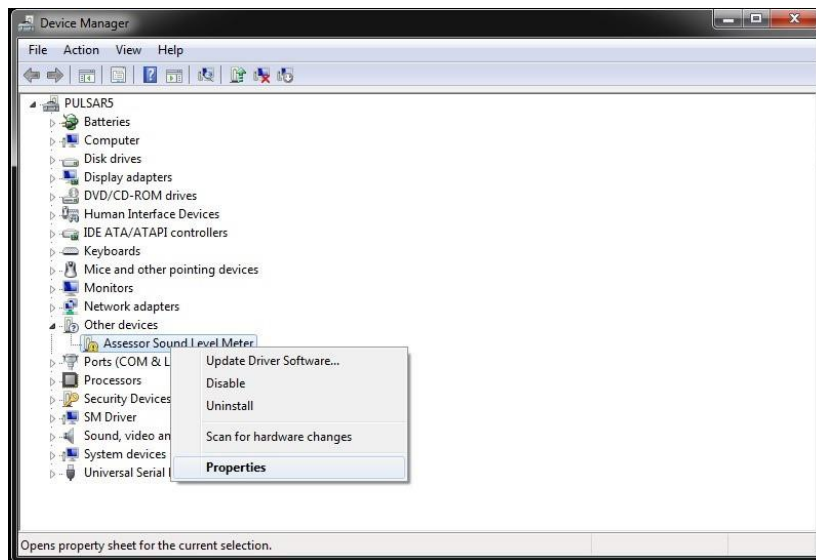
The meter may be shown in the Universal Serial Bus controllers section as shown below in Figure 1 or as "USB Serial Converter". Look for the yellow error marker.

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(Figure 1)

Right click on the device and select Properties.



(Figure 2)

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Click on the Details tab, and select Hardware Ids from the dropdown menu.

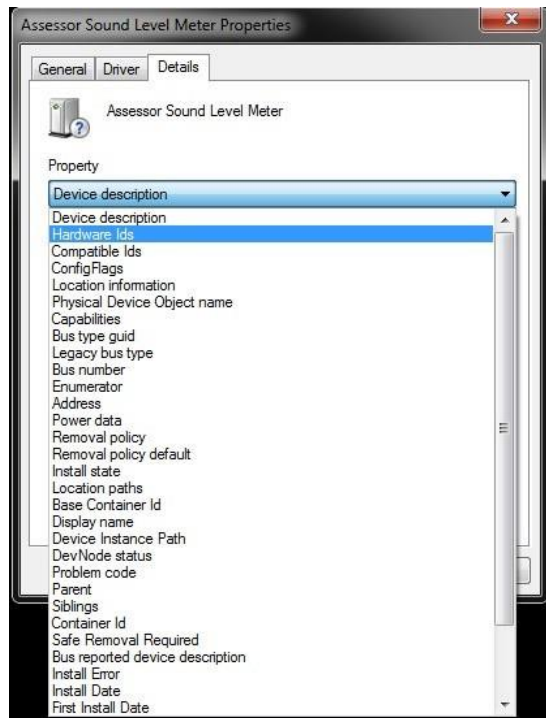


Figure 3

If the device has a VID and PID that is anything other than VID_0403&PID_6001 then the unit must be returned to Pulsar Instruments for an upgrade.

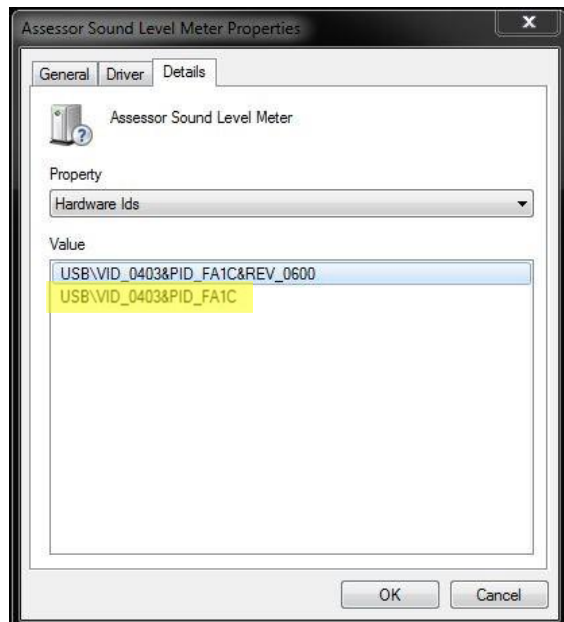


Figure 4

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Model 22-R doseBadge Reader Unit

Driver Update

The Model 22-R Reader Unit (USB) uses an FTDI Driver which is supplied with the dBLINK software installation CD and as part of the software download available from the Pulsar Instruments website.

To update the driver:

1. Download the latest driver from the chipset manufacturer website.

Click here to download the latest driver. This is available as an executable file (.exe) or a ZIP file.

http://www.ftdichip.com/Drivers/CDM/CDM20814_Setup.exe

http://www.ftdichip.com/Drivers/CDM/CDM20814_WHQL_Certified.zip

2. Disconnect the doseBadge Reader from the PC and close the dBLINK software program completely.
3. Run the driver installation program downloaded in step 1.
4. When the installation is complete, connect the Model 22-R doseBadge Reader to the PC. Windows will detect the new hardware and install the new driver. dBLINK will now be able to connect to the Reader.

Troubleshooting

The steps detailed above will install the correct Windows driver for the Model 22-R doseBadge Reader. When the doseBadge Reader is connected to the PC, if Windows cannot find or install the driver, your Reader unit may need an upgrade.

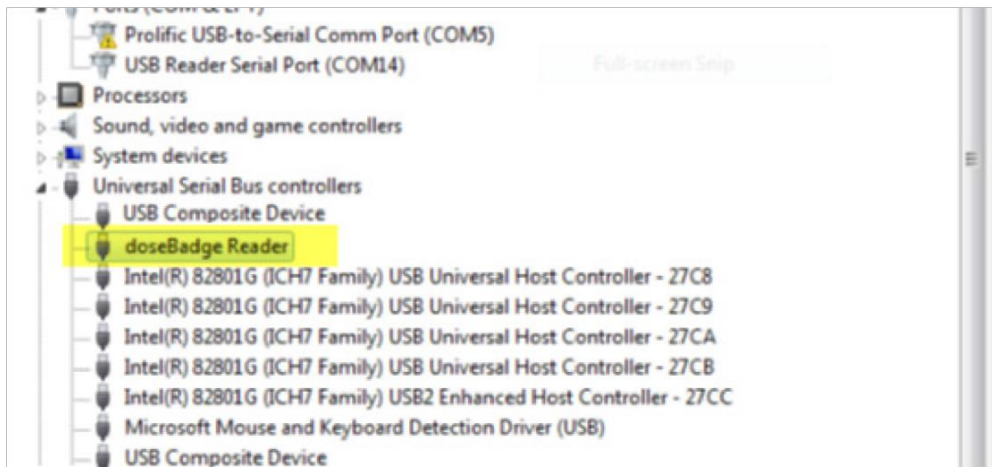
The Model 22-R doseBadge Reader units manufactured before 1st July 2009 have a different USB driver in their internal software that is not fully compatible with Windows Vista, Windows 7, Windows 8 or Windows 10. This may prevent the new driver from correctly identifying the Reader. In order to fix this problem you should return the reader for an upgrade.

Diagnostics

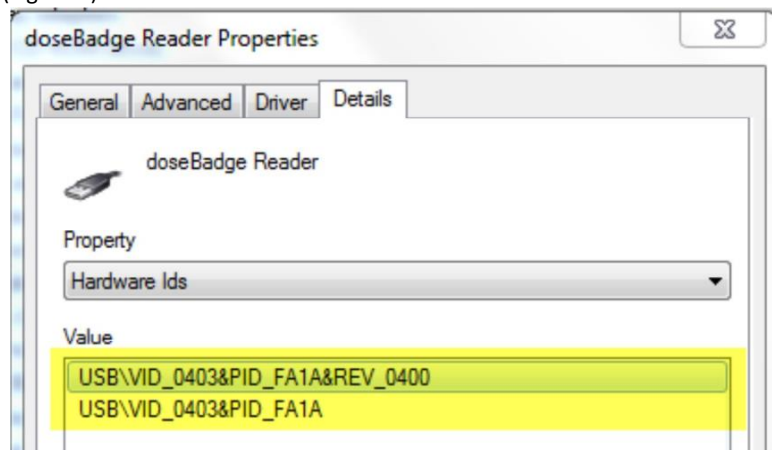
The Reader identifies itself to Windows using a USB Device PID&VID. This is shown in the Properties sheet for the Reader in the Device Manager, as shown in the examples below.

The Reader may be shown in the Universal Serial Bus controllers section as “doseBadge Reader” (as shown below in Figure 1 and Figure 2) or as “USB Serial Converter” (as shown in Figure 3 and Figure 4)

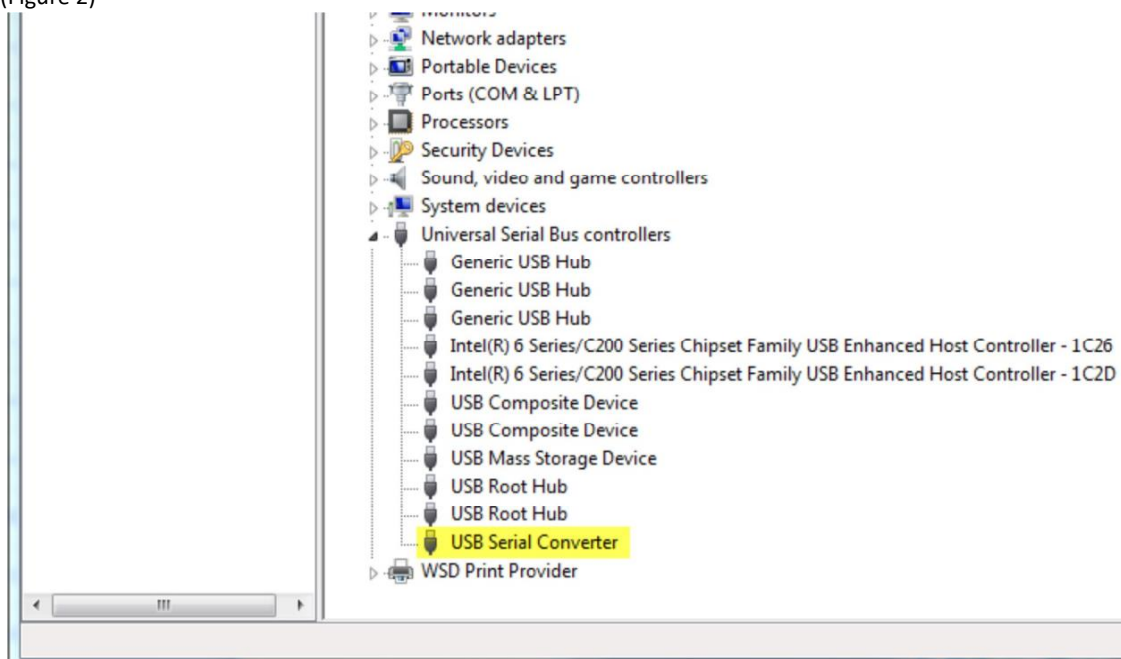
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(Figure 1)

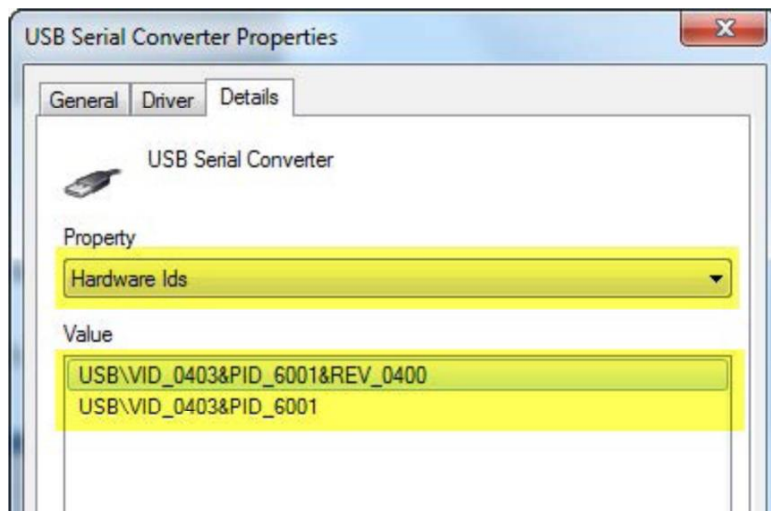


(Figure 2)



(Figure 3)

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(Figure 4)

The old identifiers are: VID_0403&PID_FA1A

The new identifiers are VID_0403&PID_6001

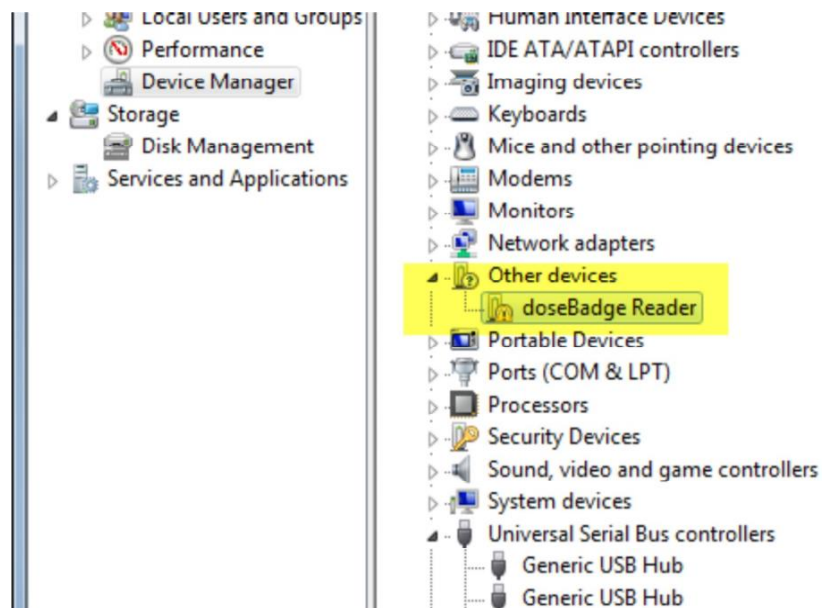
[Was the Reader connected before the Pulsar Instruments software was installed?](#)

When Pulsar Instruments software is installed from CD or download, the appropriate USB driver information is passed to Windows so it can recognise Reader hardware in the future.

However, if a Reader is connected via USB to a PC that does not have Pulsar Instruments software installed yet, Windows may not be able to identify the hardware and will mark it as an 'Unknown Device'. The Reader may not be able to connect to Pulsar Instruments software until the problem is rectified.

Diagnostics

In the Device Manager the Reader will appear in the 'Unknown Devices' section, marked with a yellow warning triangle:



(Figure 5)

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Note that the device may be identified as 'doseBadge Reader' or by a generic description such as 'USB to Serial device'.

Solution

Update the driver manually via the Device Manager (right-click on the Reader's entry and choose 'Update Driver Software' to start the New Hardware Wizard).

The correct USB driver may be found automatically online, or can be downloaded as an executable file (.exe) or a ZIP file.

http://www.ftdichip.com/Drivers/CDM/CDM20824_Setup.exe

<http://www.ftdichip.com/Drivers/CDM/CDM%20.08.24%20WHQL%20Certified.zip>

Limited User Account Permissions

On many corporate and Public Sector IT systems, general users have limited permissions in their desktop user accounts.

In particular, USB driver installation is often prevented for security reasons.

Diagnostics

In many cases it is difficult to determine whether limited permissions are responsible for a Reader connection problem.

Error messages may appear when the Reader is connected for the first time – such as 'insufficient access rights'.

However Windows may give no information to show that the USB driver has not been installed. The Reader may be shown as an 'Unknown Device' in the Device Manager as shown above.

Solution

Please consult your IT department and give them this document as a reference.

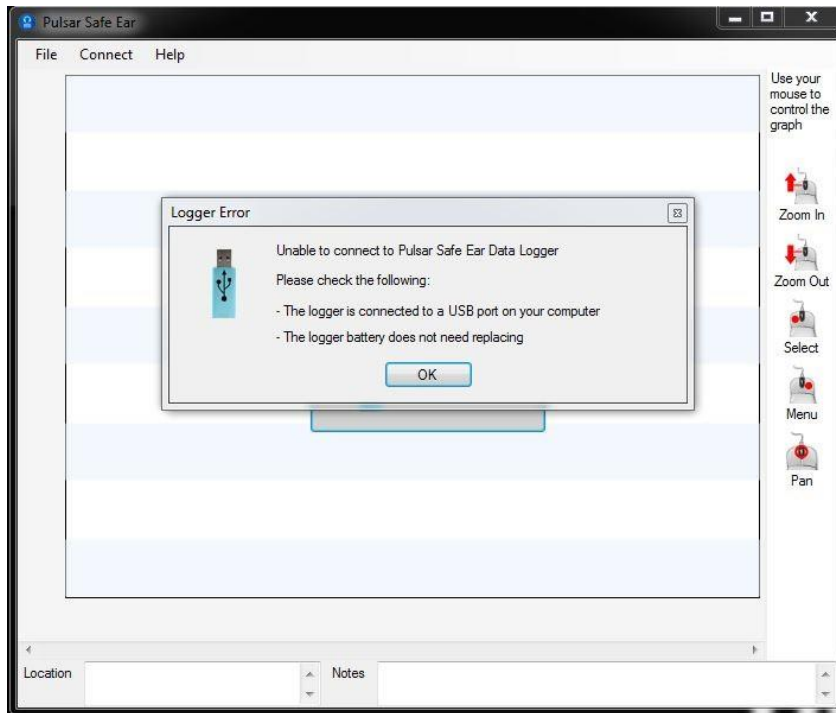
It is usually possible for an I.T. Person to use Administrator Permissions to install the Reader USB driver as described in the sections above.

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SafeEar

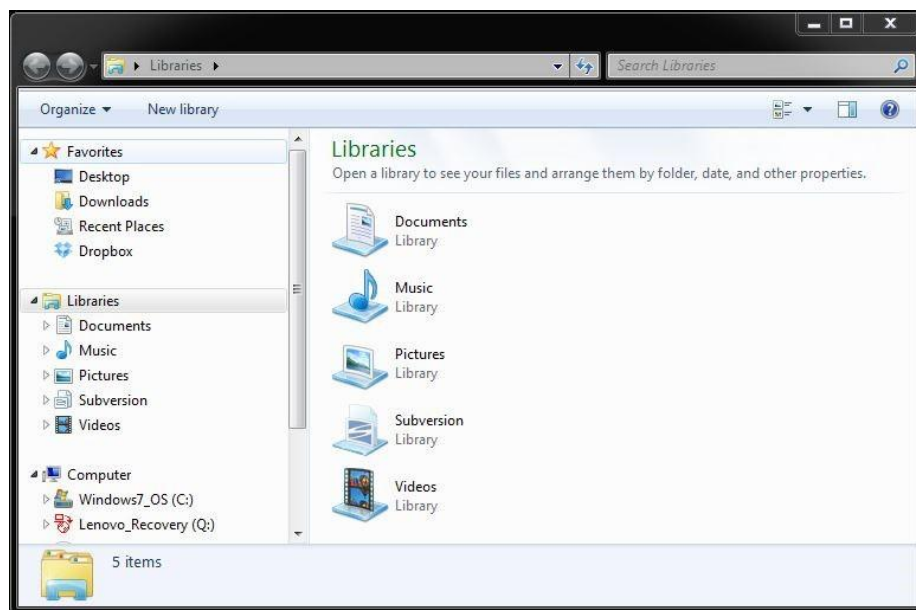
USB Data Logger Error

If you see the following error message after installing the Pulsar SafeEar software and plugging in the USB Data Logger then the driver needs to be updated.



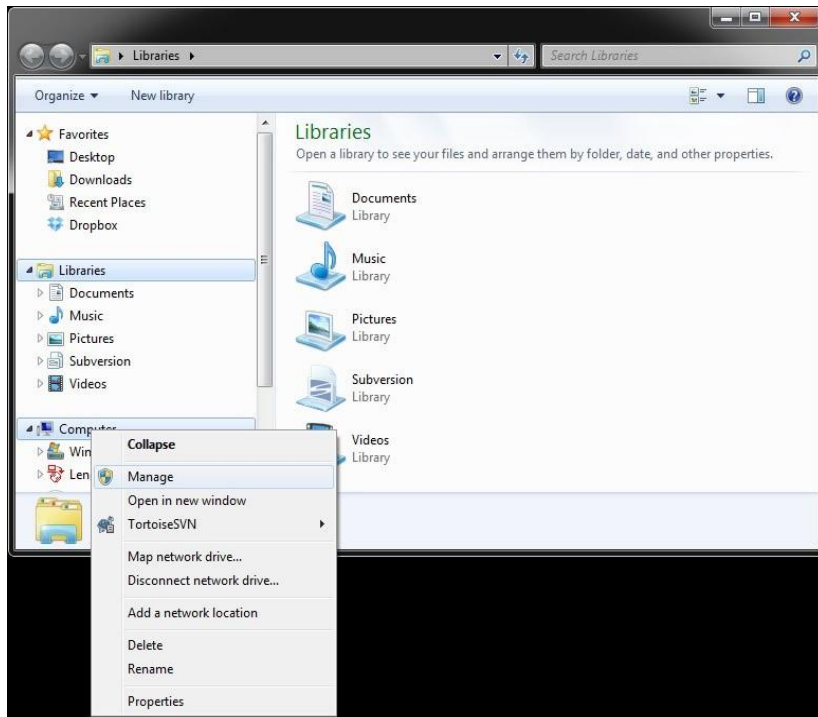
Updating the USB Data Logger driver

1. Open Windows Explorer.

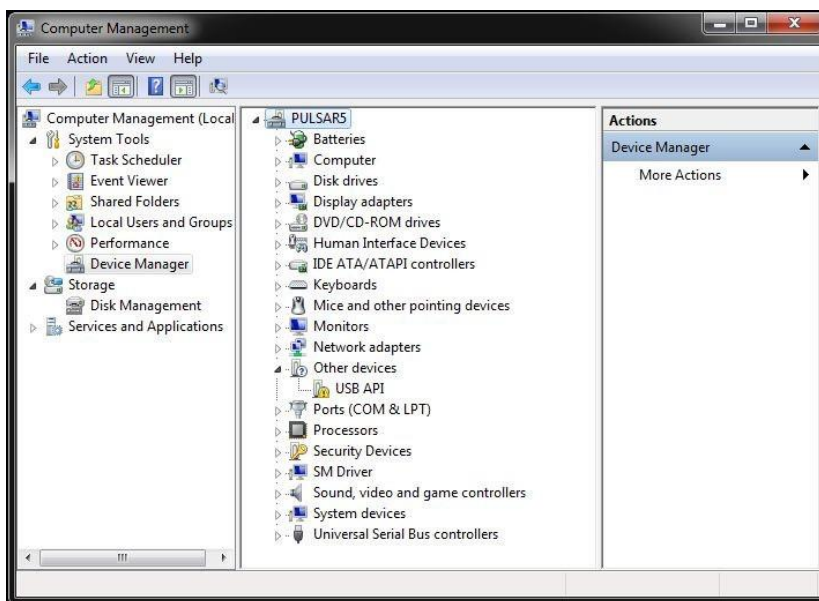


2. Right click on 'My Computer' and choose Manage.

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3. Press continue or provide your login details if prompted by User Account Control.
4. Click 'Device Manager' from the tree on the left.



5. Find an item with a yellow exclamation mark icon called either 'USB API' or 'USBExpress Device'.
6. Right click on that item and choose 'Update Driver'.
7. Click 'Browse my computer for driver software' and browse to the location shown below.

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8. Click next and windows will find and install the required driver.
If windows gives a list of possible drivers select the first one and click Next.
9. The logger is now ready for use.

Software Programs

Analyzer

The Analyzer software is compatible with the following operating systems:

- Windows XP SP2
- Windows Vista (32bit & 64bit versions)
- Windows 7 (32bit & 64bit versions)
- Windows 8 (32bit & 64bit versions)
- Windows 10 (32bit & 64bit versions)

dBLink

The dBLink software for the doseBadge is compatible with the following operating systems:

- Windows XP SP2
- Windows Vista (32bit & 64bit versions)
- Windows 7 (32bit & 64bit versions)
- Windows 8 (32bit & 64bit versions)
- Windows 10 (32bit & 64bit versions)

SafeEar Software

The SafeEar software is compatible with the following operating systems:

- Windows XP SP2
- Windows Vista (32bit & 64bit versions)
- Windows 7 (32bit & 64bit versions)
- Windows 8 (32bit & 64bit versions)
- Windows 10 (32bit & 64bit versions)

The SafeEar Data Logger requires a USB Driver which is supplied on the installation CD. This driver is compatible with the operating systems listed above.

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Pulsar Instruments Offices

The address below is the Pulsar Instruments plc office. Pulsar Instruments plc also have approved distributors and agents in many countries worldwide. For details of your local representative, please contact Pulsar Instruments plc at the address below. Contact details for Pulsar Instruments authorised distributors and agents are also available from the Internet Web site at the address shown below.

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