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## 1 Introduction

The VM 2160 - PC Software is used to download the measurement data via USB-port from your “VM 2160” device onto your computer. The datasets can be viewed and patient data can be added. Datasets can be printed out (including print preview) or being exported into a CSV file for processing with other software.

## 2 System Requirements

Windows XP SP2, Windows 2000 SP4, Windows Vista

Microsoft .net Framework (this is usually already installed on your PC)

CPU: 500 MHZ or higher processor clock speed

RAM: 256 MB or more

Super VGA (800 x 600) or higher-resolution video adapter and monitor

One free USB port

Keyboard and Mouse or compatible pointing device

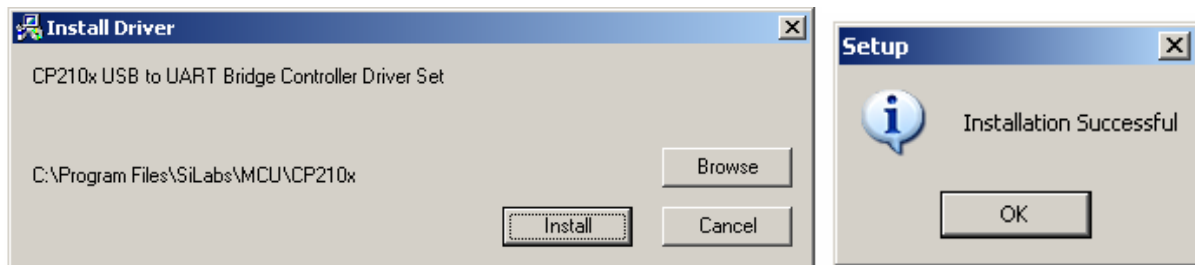
15 MB of available hard disk space

### 3 USB Driver

#### 3.1 Install USB-Driver

BEFORE you start the VM 2160 - PC Software you have to install the USB Driver.

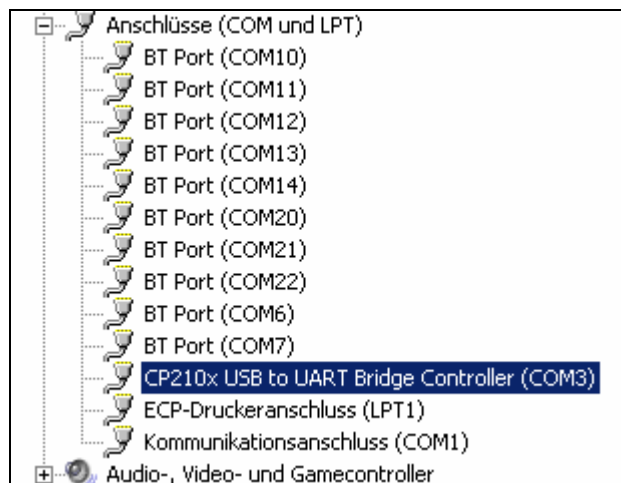
1. Make sure that the Device is not connected to the USB-Port.
2. Search the Folder "USB Driver" on the CD
3. Run the file Setup.exe
4. Change Installation path or accept default path
5. Select "Install"
6. Confirm Message "Installation Successful"



#### 3.2 Finding out which COM port was assigned to the device

1. Make sure that the USB cable is plugged into the device and it is connected to the PC USB-port.
2. Make sure that the Pulse oximeter is switched on

Right-click with the mouse button on "My computer", Select "Properties" → "Hardware" → "Device Manager". Double click on "Ports (COM & LPT)". There you should see the new entry "CP210x USB to UART Bridge Controller (COM?)". At the end of the line you can see which COM port has been assigned to your device.



## 4 VM 2160 - PC Software

### 4.1 Installation

Check website <http://www.viamed-online.com> to get the latest version.

1. Make sure that USB Driver is properly installed
2. Double-click on the “Setup.exe” file and choose installation path

### 4.2 Running the Program

1. Use Desktop short-cut to start the program



1	List of downloaded data sets.
2	Patient information text field
3	Zoom and scroll buttons “+” zooming into the graph “-” zooming out of the graph “<” scrolling graph view to the left “>” scrolling graph view to the right “100%” zooming back to standard zoom level
4	Indication Bar to show the exact reading values at the chosen position. Drag with left mouse button to zoom in.
5	SpO2 curve
6	Alarm border
7	Pulse rate curve

#### **4.2.1 Download Data**

1. Connect Device to USB port and switch on
2. Select menu point COMMUNICATION
3. Choose DOWNLOAD
4. Select COM Port
5. Press button Download
6. Accept suggested filename or choose new name
7. Choose dataset in the list

#### **4.2.2 Open Data from File**

1. Select menu point FILE and select OPEN
2. Choose an .oxy file

#### **4.2.3 Graph**

1. Green line = SpO2
2. Red line = Pulserate
3. yellow lines = Alarm borders

#### **4.2.4 Zooming with mouse**

1. Click into the graph
2. Highlight zoom area by dragging mouse while keeping left mouse button pressed
3. Release mousebutton
4. Click right mouse button to zoom out to 100%

#### **4.2.5 Zooming with buttons**

1. "+" zooming into the graph
2. "-" zooming out of the graph
3. "<" scrolling graph view to the left
4. ">" scrolling graph view to the right
5. "100%" zooming back to standard zoom level

#### **4.2.6 Enter patient data**

1. Click into text field
2. Write text
3. To permanently store the patient information you will be asked to save the changes when you exit the program.

#### **4.2.7 Print graph**

1. Select Dataset in List
2. Zoom and scroll to view that you want to print
3. Select menu point PRINT PREVIEW to check the output
4. Select menu point FILE and PRINT

#### **4.2.8 Save Data**

1. Data is automatically saved when you exit the program
2. Select menu point FILE and SAVE as to store Data under different file name

#### **4.2.9 Export a single dataset**

1. Select Dataset that you want to export
2. Select menu point FILE and select EXPORT
3. Enter filename and save CSV file

## **5 FAQ + Troubleshooting**

### **5.1 Problem: No connection to device**

1. Is the device switched on?
2. Is the USB cable connected to the device
3. Is the USB cable connected to the PC
4. Is the USB Driver properly installed (see chapter “Driver installation)
5. Is the correct COM-port selected (see chapter “Driver installation how to find out which COM-port is assigned).

### **5.2 Problem: Dataset checksum Error**

Your downloaded Data is corrupted. Please try to re-download the data. All not-corrupted datasets of the download will be displayed

### **5.3 Problem: “No data to display!”**

A single dataset does not show a graph. This is because there has been no measurement data taken between switching the pulse oximeter on and off.

### **5.4 Problem: Empty downloaded dataset**

An entire download has no data. This happens when in the pulse oximeter device the action “delete all data” has been performed and no new measurement has been done. Check the data manager in the device to see if there is any data stored.

### **5.5 Printing problems**

Go to menu point FILE and select Printer Setup. Make sure that the correct printer is selected and the correct settings have been set for the printer.

## 6 Contact

Viamed Ltd.  
15 Station Road  
Cross Hills  
Keighley  
West Yorkshire BD20 7DT  
United Kingdom

Tel: +44 (0)1535 634542  
Fax: +44 (0)1535 635582  
E-mail: [info@viamed.co.uk](mailto:info@viamed.co.uk)

[www.viamed-online.com](http://www.viamed-online.com)