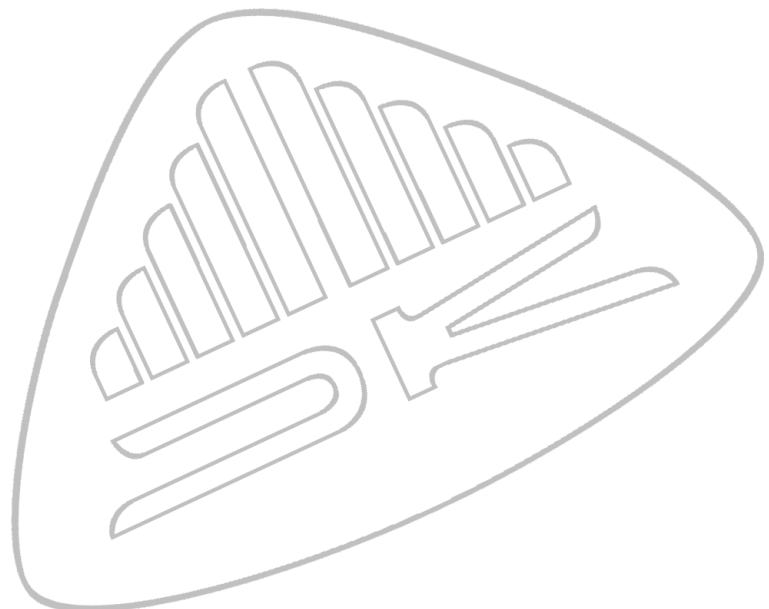


# **[Users Guide]**

## **USB Driver installation**

**Applies to the following models:**

**dkMeter DK1 / DK2,  
700 Series Instruments**





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# 1 Introduction.

The 700 Series Instrument and dkMeter DK1 / DK2 hereafter referred to as the Instrument, is equipped with a USB interface that in Windows® emulates a standard serial port.

Even though the 700 Series Instrument is also equipped with a standard RS232 serial interface, all software updates for the 700 Series Instrument must be installed using the USB interface.

**Observe.:** When the USB interface is connected to a computer the RS232 serial interface and Ethernet interface on the 700 Series Instrument will be disabled.

The USB drivers is supplied with the DK-Update and the dkMeterUpdate software. Please see the users guide for information about how to unpack the drivers from the EXE file.

The images in this guide shows how the drivers for the 700 Series instrument is installed. The procedure for the dkMeter is exactly the same.

Windows® Vista and Windows® 7 users can go directly to section 3 in this guide.

## 2.1 Driver installation (Windows® XP).

In order to have the USB interface functioning in Windows® XP, drivers must be installed. This section describes the recommended and "safe" way to install the USB drivers. Windows® Vista and Windows® 7 Drivers is also available.

If a CD-Rom was supplied with the Instrument insert it into the computer, otherwise un-zip the files received from DK-Technologies A/S to a directory on the harddrive, then connect the USB cable and turn on the Instrument.

When the USB Cable is connected, Windows® will detect the new hardware either as a 'PT0760 Virtual Serial Port' or a 'DK-Technologies generic USB to Serial Port' and the 'Found New Hardware'-wizard will start.



**Step 1 of 5.:**  
On the question about searching for drivers on "Windows Update" select 'No, not this time.'

Press 'Next >' to continue.

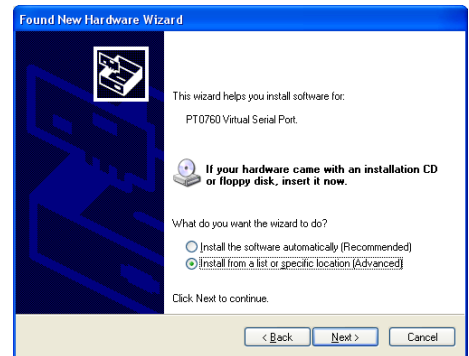


**Step 2 of 5.:**

Select the option 'Install from a list or specific location (Advanced)'.

In this case the drivers will be installed from the CD-Rom drive.

Press 'Next >' to continue.



**Note.:** If you know that the drivers have already been installed in the system for another Instrument you can reuse those drivers by selecting 'Install the software Automatically'.

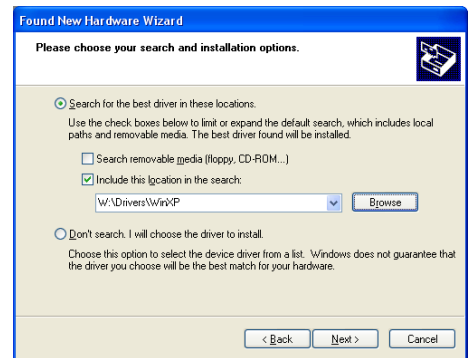
**Step 3 of 5.:**

Select the option 'Search for the best drivers in these locations.'

Un-check the option 'Search Removable Media (Floppy, CD-Rom, ...)'.

Check the option 'Include this location in the search' and enter the path where the drivers are located. In this case they are located on a CD-Rom in the directory 'Drivers\WinXP'.

Press 'Next >' to continue.



**Step 4 of 5.:**

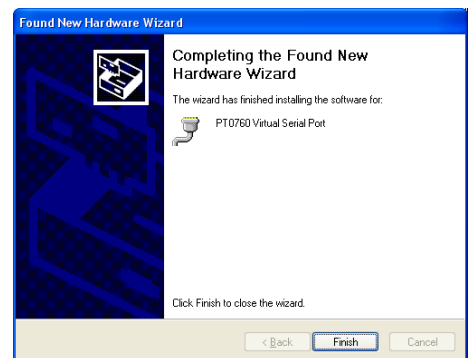
Select 'Continue Anyway' when Windows® states that the USB drivers has not passed Windows Logo Testing.



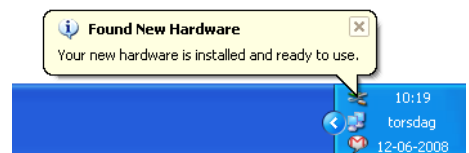
**Step 5 of 5.:**

After a while the drivers will be installed and the 'Found New Hardware'-wizard will complete.

Press 'Finish' to exit the wizard.



When the Instrument USB drivers have been installed correctly the message at the right will appear.



## 2.2 Using the USB interface.

The USB port on the Instrument emulates a serial (COM) port just like a normal USB to serial converter. This enables some of the usual software from DK-Technologies A/S to function as normal.

Windows® automatically assigns a COM port number to the Instrument during the installation of the USB drivers. Two Instrument's will have different COM port numbers assigned even if they are not connected to the computer at the same time. When a Instrument is reconnected the previously assigned COM port number does usually not change.

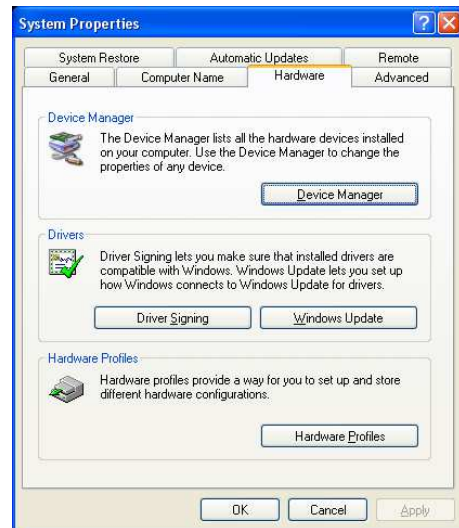
## 2.3 Finding the COM port number using the 'Device Manager'.

Not all of the software from DK-Technologies A/S can automatically detect which COM port the Instrument is connected to, and if there are many COM devices connected to the system it might be necessary to look up the COM port number in the Windows® 'Device Manager'.

To access the 'Device Manager' in Windows® XP go to the 'Control Panel' and select 'System'. 'Control Panel' is normally accessible from the start menu.

Administrative privileges might be needed to do this. In the 'System Properties' window select the 'Hardware' tab and click 'Device Manager'.

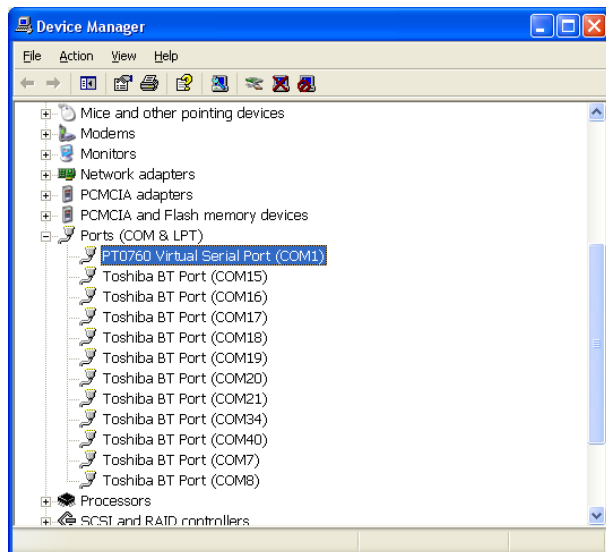
**Tip:** An easy way to access the 'Device Manager' in Windows® XP is to select 'RUN' from the 'Start'-menu and enter 'DEVMGMT.MSC' in the text field and then press the 'OK' button.



In the device tree in the 'Device Manager' select 'Ports (COM & LPT)'. This section will show all the available serial (COM) and parallel ports installed in the computer.

In this case, only one 700 Series Instrument has been connected to the system, and it has been assigned COM1 during the driver installation.

dkMeters will show up as a 'DK-Technologies generic USB to Serial port'.



## 2.4

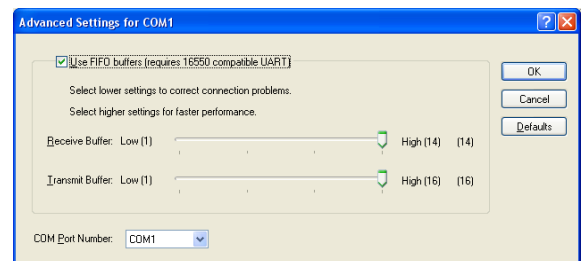
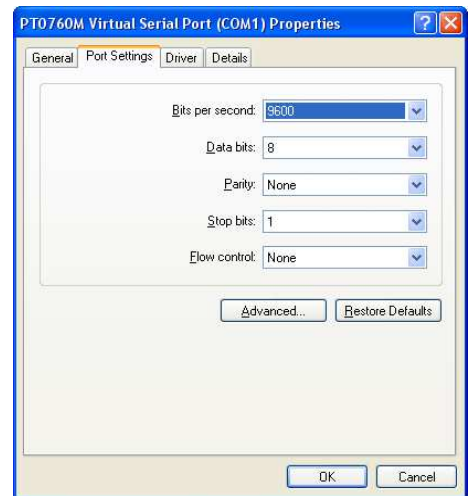
**Changing the assigned COM port number in Windows® XP.**

To change the COM port number of the Instrument connected through the USB interface go to the '**Device Manager**' in Windows® XP as described in section 2.3.

Select the appropriate com port from the device tree, right click and select '**Properties**'.

In the '**Properties**'-window select the '**Port Settings**' tab and click the '**Advanced**' button to open the '**Advanced Settings**'-window.

In the '**Advanced Settings**'-window select a new COM port number from the drop down box '**COM Port Number**'.



Click '**OK**' to accept the changes in the '**Advanced Settings**'-window.

In the '**Properties**'-window click '**OK**' to accept the changes.  
Close the device manager when done.

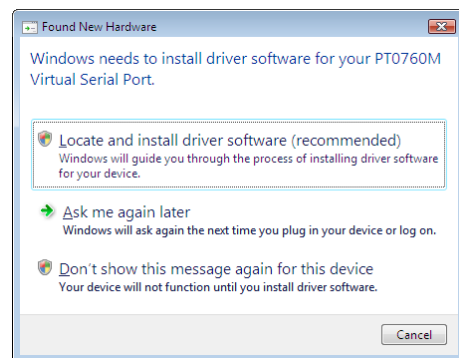
### 3.1 Driver installation (Windows® Vista and Windows® 7).

In order to have the USB interface functioning in Windows® Vista and Windows® 7, drivers must be installed. This section describes the recommended and “safe” way to install the USB drivers. Windows® XP Drivers is also available.

If a CD-Rom was supplied with the Instrument DO NOT insert it into the computer at this moment. If you received the drivers from DK-Technologies as a ZIP-file, un-zip the files to a directory on the harddrive. When ready, connect the USB cable and turn on the Instrument.

When the USB Cable is connected, Windows® Vista and Windows® 7 will detect the new hardware either as a 'PT0760 Virtual Serial Port' or a 'DK-Technologies generic USB to Serial Port' and the 'Found New Hardware'-wizard will start.

**Step 1 of 6.:**  
When the Instrument has been detected Windows® Vista and Windows® 7 will present multiple options. Please select the option 'Locate and install driver software (recommended)'.  
**'Locate and install driver software (recommended)'**.

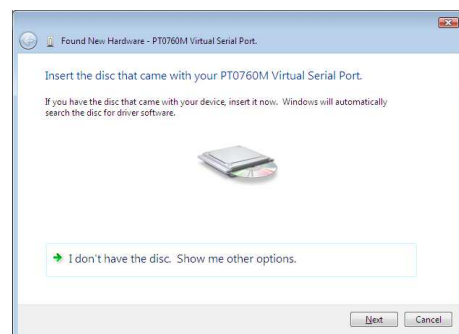


**Step 2 of 6.:**  
Windows® Vista and Windows® 7 will try to locate the USB drivers automatically. When the drivers can not be located a window will appear with multiple options.



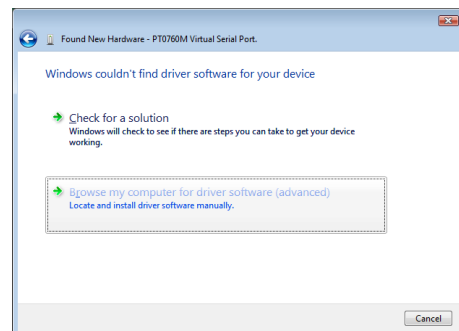
**Tip.:** Do not click the balloon tip in the system tray.

**Step 3 of 6.:**  
If you received the USB drivers on a CD-Rom please insert the CD-Rom now. Windows® Vista will then locate the drivers automatically. Go to step 5.



If you do not have the USB drivers on a CD-Rom then please select the option 'I don't have the disc. Show me other options.'

Select 'Browse my computer for driver software (advanced)' and go to step 4.

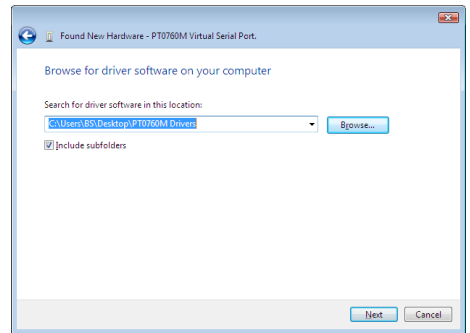




**Step 4 of 6.:**

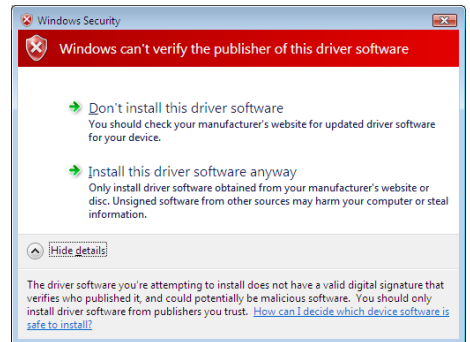
Enter the path to the destination where the USB drivers are located.

Press '**Next**' to continue.



**Step 5 of 6.:**

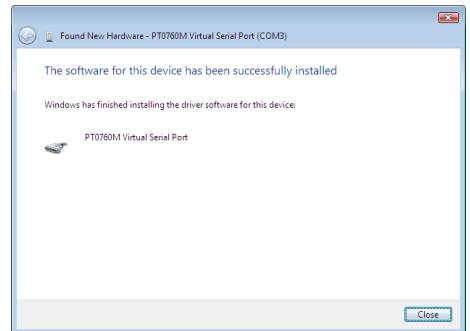
When Windows® Vista and Windows® 7 states that it can't verify the publisher of the driver software select the option '**Install this driver software anyway**'.



**Step 6 of 6.:**

After a while the drivers will be installed and the '**Found New Hardware**'-wizard will complete.

Press '**Close**' to exit the wizard.



When the Instrument USB drivers have been installed correctly the message at the right will appear.



### 3.2 Using the USB interface.

The USB port on the Instrument emulates a serial (COM) port just like a normal USB to serial converter. This enables some of the usual software from DK-Technologies A/S to function as normal.

Windows® automatically assigns a COM port number to the Instrument during the installation of the USB drivers. Two Instrument's will have different COM port numbers assigned even if they are not connected to the computer at the same time. When a Instrument is reconnected the previously assigned COM port number does usually not change.

### 3.3 Finding the COM port number using the 'Device Manager'.

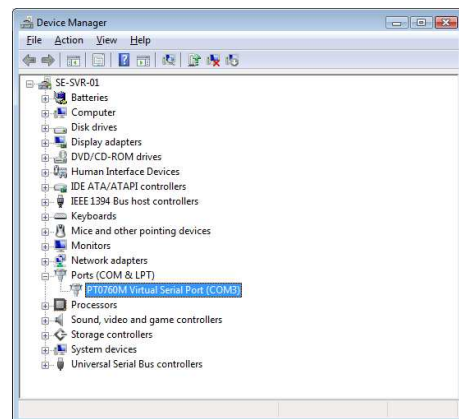
Not all of the software from DK-Technologies A/S can automatically detect which COM port the Instrument is connected to, and if there are many COM devices connected to the system it might be necessary to look up the COM port number in the Windows® 'Device Manager'.

Administrative privileges is needed to access the 'Device Manager'. In Windows® Vista and Windows® 7 select 'Control Panel' (usually available from the start menu) and switch to 'Classic View'. In 'Classic View' select 'Device Manager'.

**Tip:** An easy way to access the 'Device Manager' in Windows® Vista and Windows® 7 is enter 'DEVMGMT.MSC' in the search field in the start menu and press enter.

In the device tree in the 'Device Manager' select 'Ports (COM & LPT)'. This section will show all the available serial (COM) and parallel ports installed in the computer.

In this case, only one 700 Series Instrument has been connected to the system, and it has been assigned COM3 during the driver installation.



### 3.4

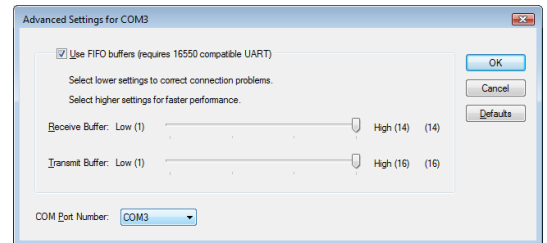
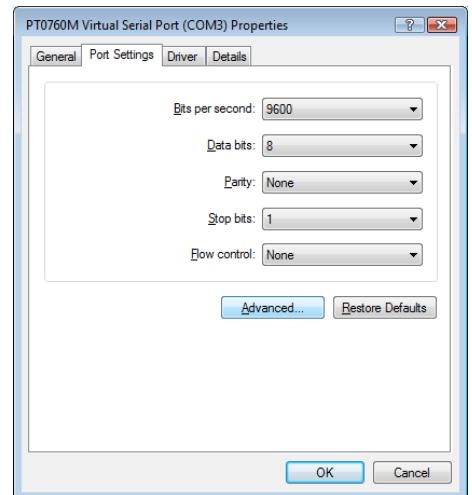
## Changing the assigned COM port number.

To change the COM port number of the Instrument connected through the USB interface go to the '**Device Manager**' as described in section 3.3.

Select the appropriate serial port from the device tree, right click and select '**Properties**'.

In the '**Properties**'-window select the '**Port Settings**' tab and click the '**Advanced**' button to open the '**Advanced Settings**'-window.

In the '**Advanced Settings**'-window select a new COM port number from the drop down box '**COM Port Number**'.



Click '**OK**' to accept the changes in the '**Advanced Settings**'-window.

In the '**Properties**'-window click '**OK**' to accept the changes. Close the device manager when done.

