

# BWSpec™ Software and Hardware Installation Guide



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## Table of Contents

1.	<b>INTRODUCTION.....</b>	<b>4</b>
2.	<b>SUPPORTED OPERATING SYSTEMS.....</b>	<b>4</b>
3.	<b>MINIMUM SYSTEM REQUIREMENTS .....</b>	<b>4</b>
4.	<b>SOFTWARE INSTALLATION.....</b>	<b>4</b>
4.1	<b>Running the ‘setup.exe’ file .....</b>	<b>6</b>
4.1.1	Windows XP, Vista, or 7 .....	6
4.1.2	Windows 8 and 8.1 Pro.....	8
4.1.3	Windows 10.....	13
5.	<b>PREPARING TO INSTALL.....</b>	<b>14</b>
6.	<b>INSTALLSHIELD WIZARD .....</b>	<b>15</b>
7.	<b>OPEN THE DEVICE MANAGER.....</b>	<b>18</b>
7.1	<b>Windows XP, Vista, 7, 8, 8.1, or 10:.....</b>	<b>18</b>
8.	<b>HARDWARE INSTALLATION.....</b>	<b>19</b>
8.1	<b>USB 2.0 Ported Spectrometer Hardware Driver Installation for 32-Bit OS and 64-Bit OS .....</b>	<b>19</b>
8.1.1	<b>Manually Install USB 2.0 Driver for 32-Bit OS and 64-Bit OS .....</b>	<b>21</b>
8.2	<b>USB 3.0* Ported Spectrometer Hardware Driver Installation for 32-Bit OS and 64-Bit OS .....</b>	<b>24</b>
8.2.1	<b>Manually Install USB 3.0 Driver for 32-Bit OS and 64-Bit OS .....</b>	<b>26</b>
8.3	<b><i>Windows 8/8.1 Pro Driver Installation .....</i></b>	<b><i>30</i></b>



## 1. Introduction

These instructions will guide you through the software installation of BWSpec 4.04 and the driver/hardware installation of your spectrometer onto your Windows-based computer.

## 2. Supported Operating Systems

Windows XP\* (32 bit)  
Windows Vista (32 bit & 64 bit)  
Windows 7 (32 bit & 64 bit)  
Windows 8 / 8.1 (32 bit & 64 bit)  
Windows 10\* (32 bit & 64 bit)

\*Note although the above operating systems are supported, Windows 7 and 8 / 8.1 are recommended. Microsoft have ended official support for Windows XP, and it is only listed here to provide information to support for legacy PC system. B&W Tek therefore no longer guarantee Windows XP support.

Some screenshots below indicate the 32-Bit software and 64-Bit software versions are being installed. The same windows apply for both Bit operating systems versions, except where noted.

## 3. Minimum System Requirements



Meets or exceeds the System Requirements for your PC's Operating System respectively  
Processor: 1.5GHz or faster  
RAM: 1GB or more  
Hard disk space: 250MB available or more\*

\* Excluding additional hard disk space required to store generated data by the application.

## 4. Software Installation

- Open the BWSpec folder located on your CD or downloaded .zip file.
- Open the Install folder:
- Open the appropriate Folder for your appropriate Bit Operating System:  
**\*\*If you are not sure if you have a 32-Bit or 64-Bit OS, check with your IT Dept.\*\***



Name
 32bit
 64bit



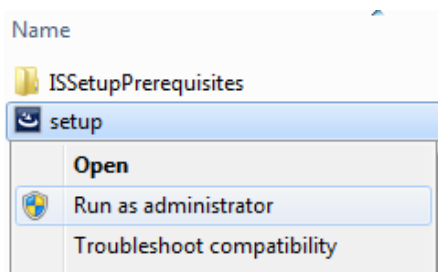
## 4.1 Running the 'setup.exe' file and Prerequisites

Find the section below which matches the Operating System on your computer:

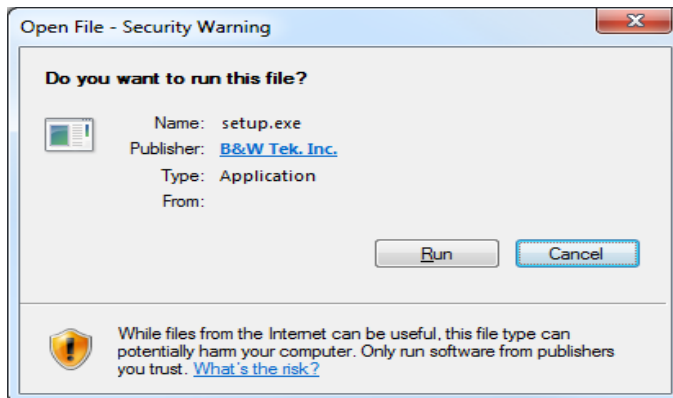
Sections include: Windows XP, Vista, Windows 7, Windows 8, Windows 8.1, and Windows 10.

### 4.1.1 Windows XP, Vista, or 7

- Right Click on the 'setup.exe' file and select 'Run as Administrator'



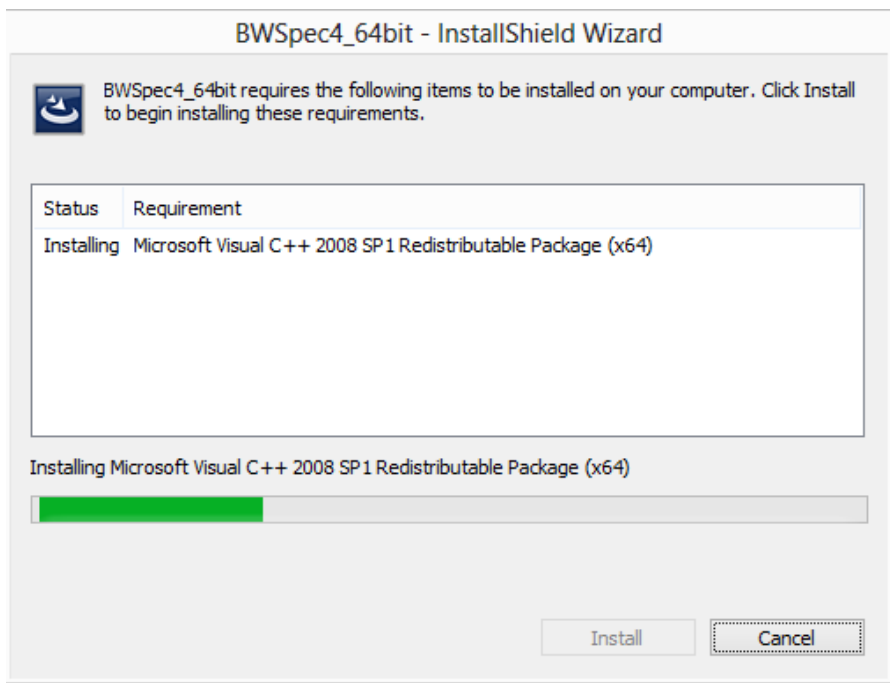
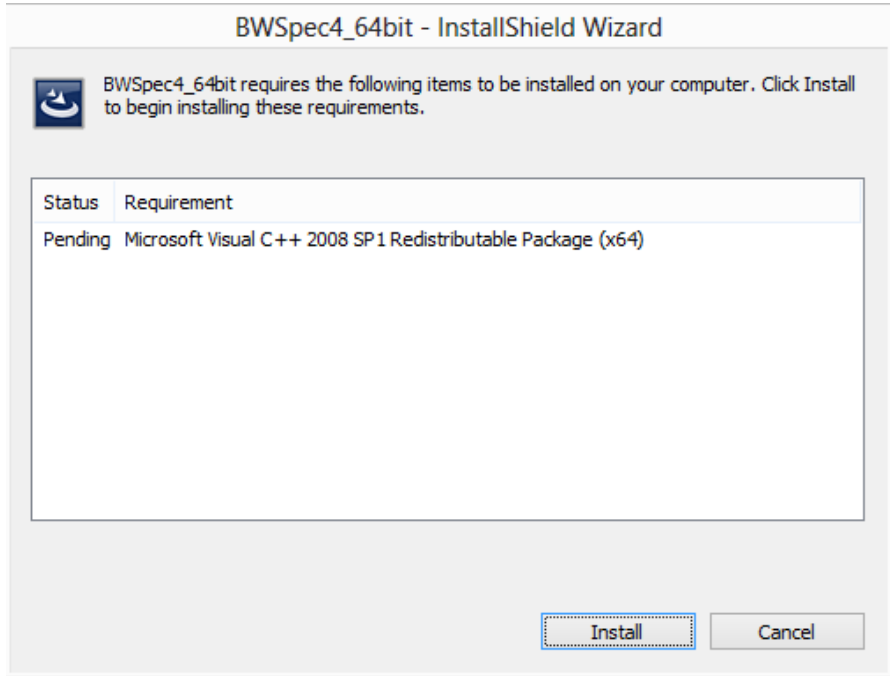
- A Security Warning window will appear.



- Click 'Run'



- An InstallShield Wizard may appear for C++ 2008 SP1 to be installed. Click 'Install'



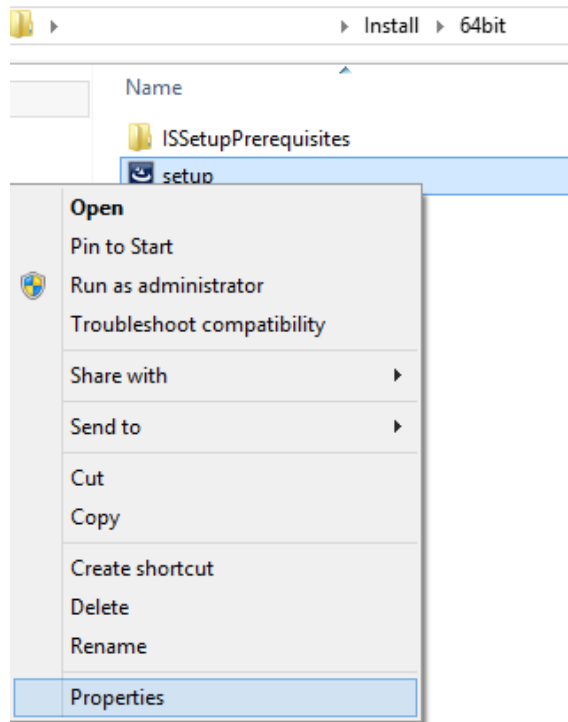
- **Go to the 'Preparing to Install' Section 5.**



## 4.1.2 Windows 8 and 8.1 Pro

- Right Click on the setup file.

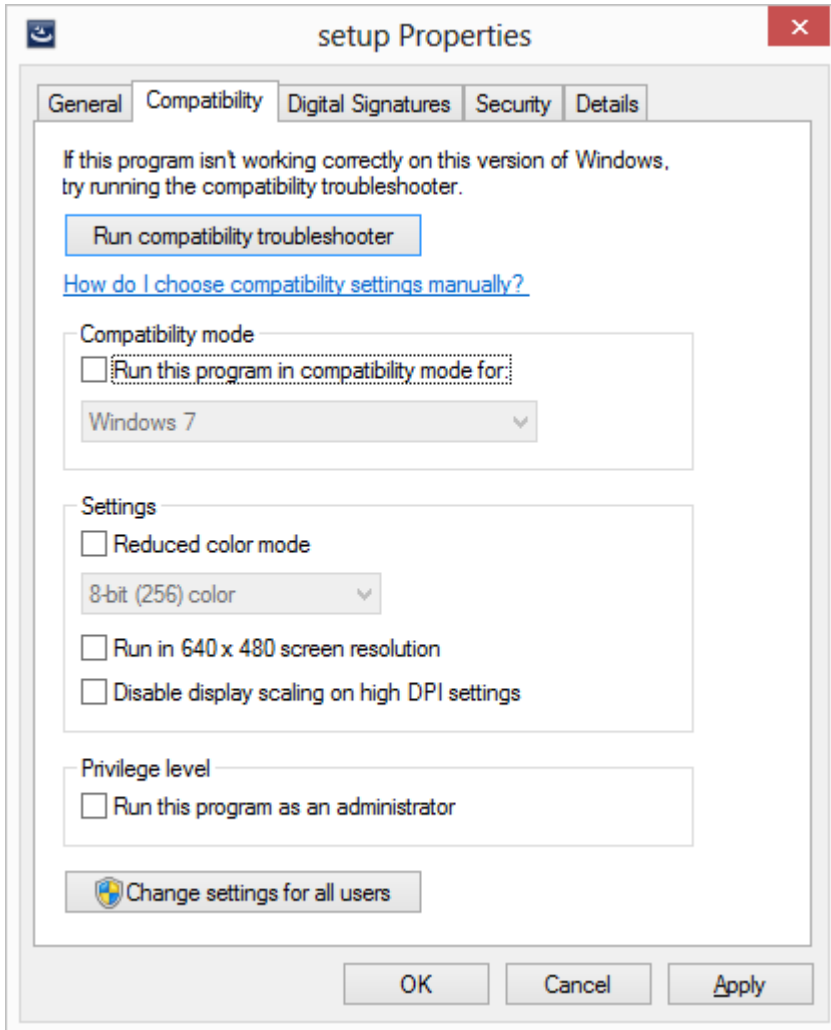
Select Properties







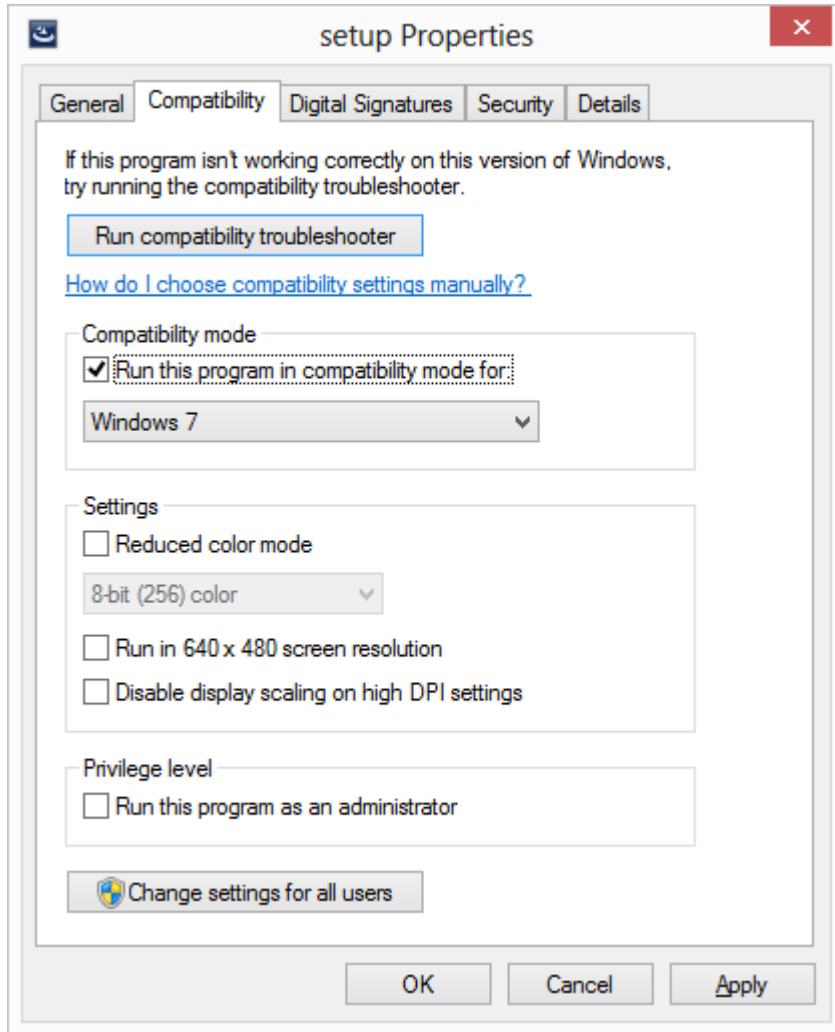
- In the Properties window, select the 'Compatibility' tab.



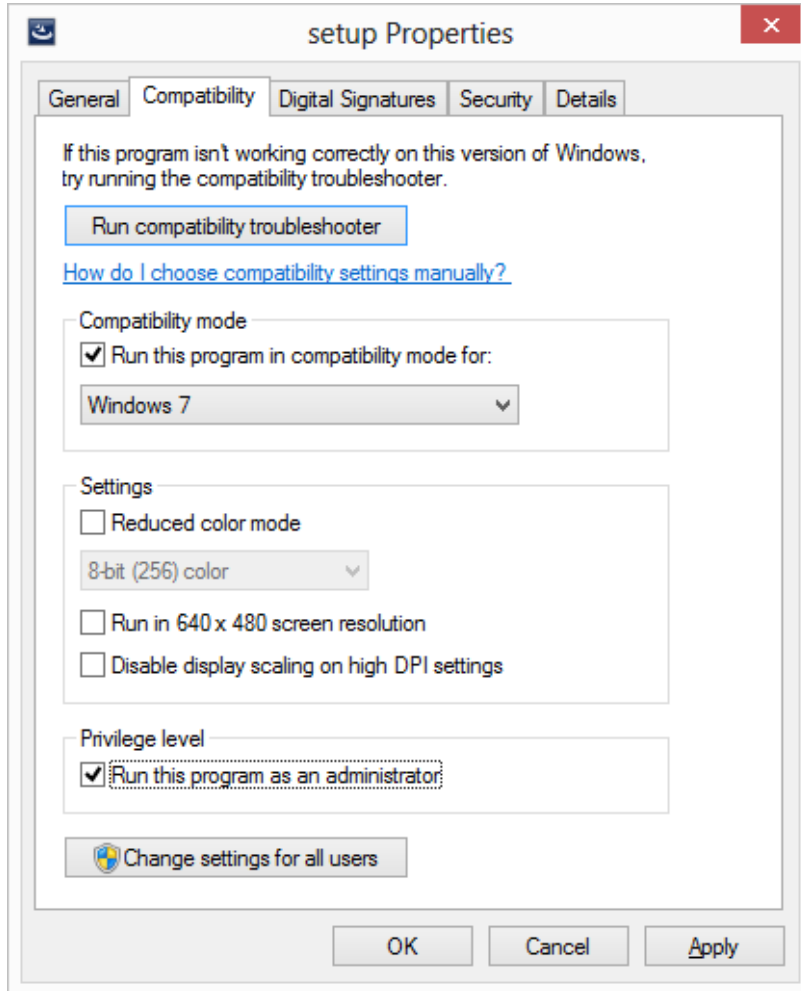


- Under ‘Compatibility mode’, enable ‘Run this program in compatibility mode for:’

In the dropdown menu, select ‘Windows 7’



- Under 'Privilege level', Enable 'Run this program as an administrator'  
Click 'Apply', then the 'OK' button



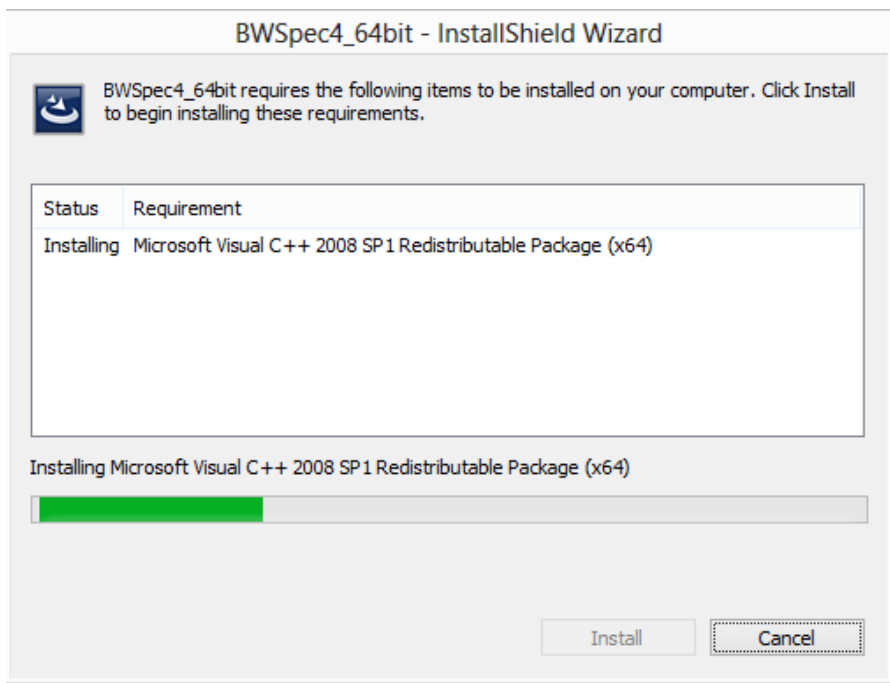
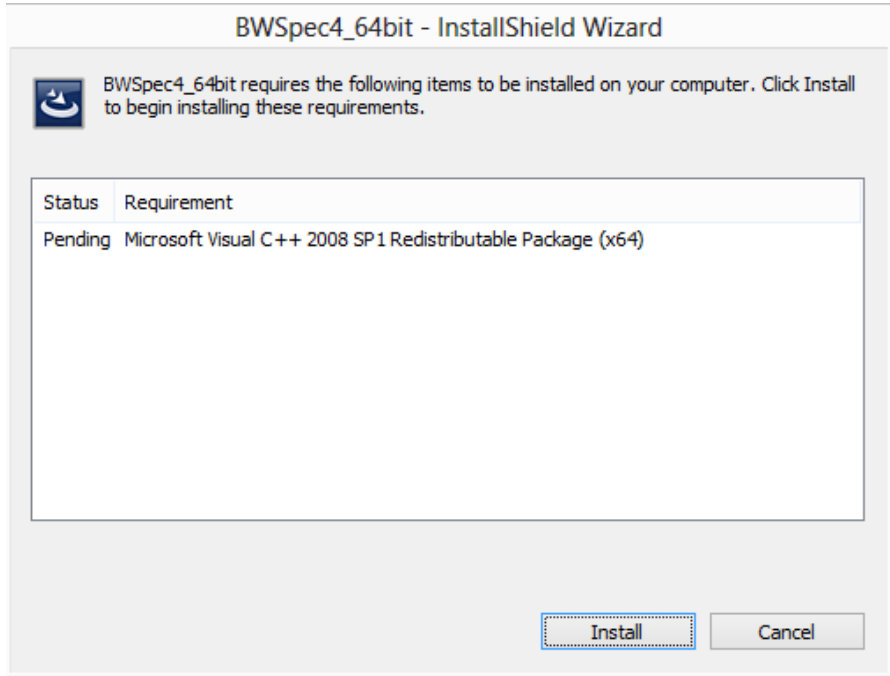
- Double-click the 'seup.exe' file to begin the installation process:

Install > 64bit

Name	Date modified	Type	Size
ISSetupPrerequisites	6/26/2013 9:38 AM	File folder	
setup	6/25/2013 3:22 PM	Application	66,840 KB



- An InstallShield Wizard may appear for C++ 2008 SP1 to be installed. Click 'Install'



- **Go to 'Preparing to Install' section 5.**



### 4.1.3 Windows 10

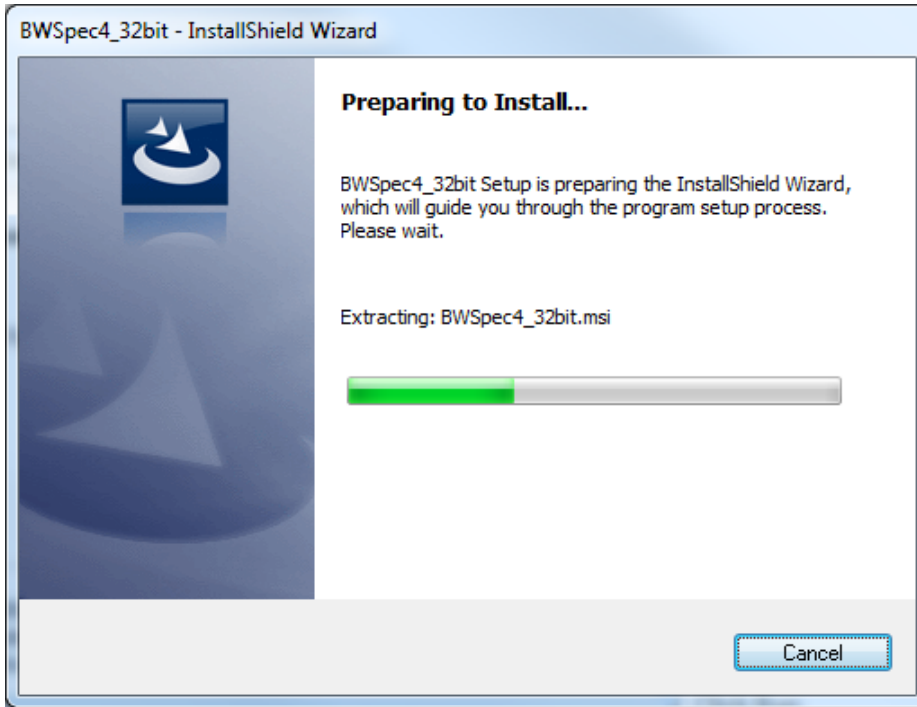
- **Before running the setup.exe file**, open the ISSetupPrerequisites Folder
- Run the installation files inside each of the sub-folders; 64-bit is shown on the left, 32-bit on the right.



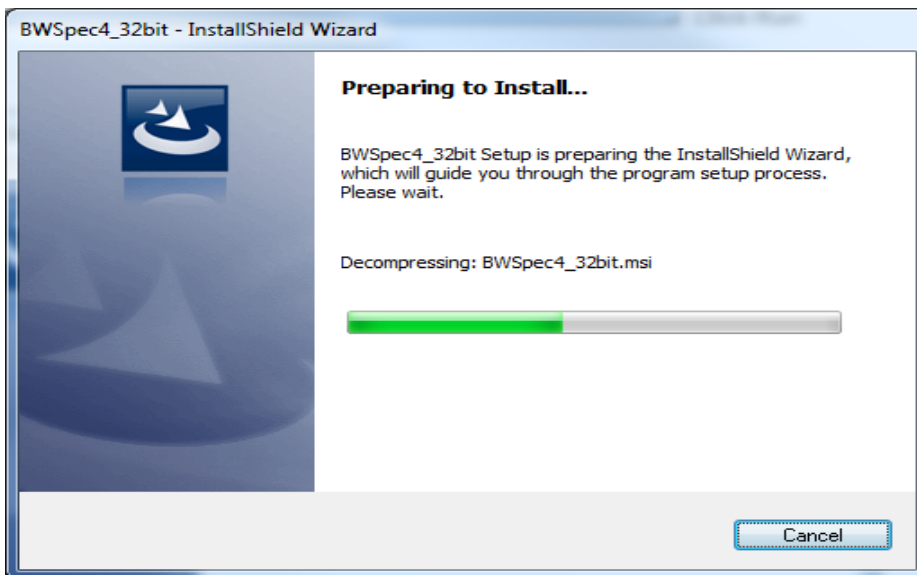
- When prompted, download and install the latest Net 3 files.
- After all the Prerequisites are installed, follow the installation for Windows 8, Section 4.1.2.



## 5. Preparing to Install



### Extracting



### Decompressing



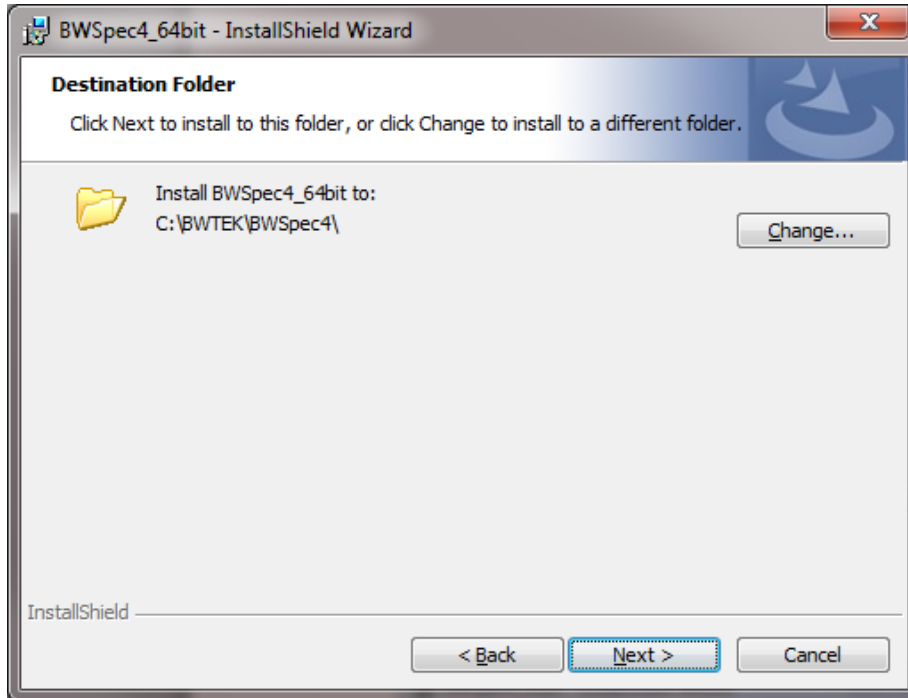
## 6. InstallShield Wizard



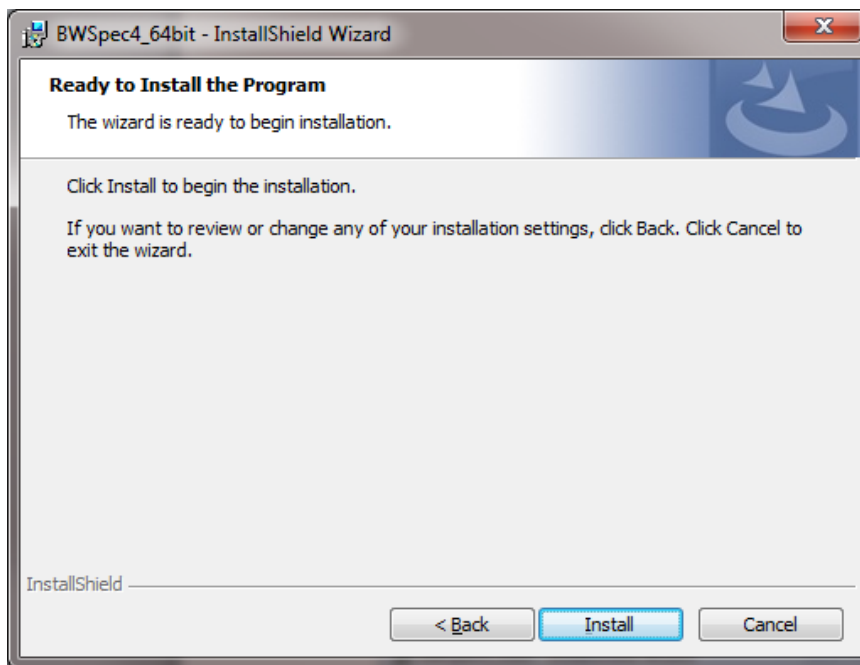
- Welcome Screen: Click “Next”



- License Agreement page: **Read the license agreement.**
- Select, “I accept the terms in the license agreement” to continue with installation.
- Click “Next”

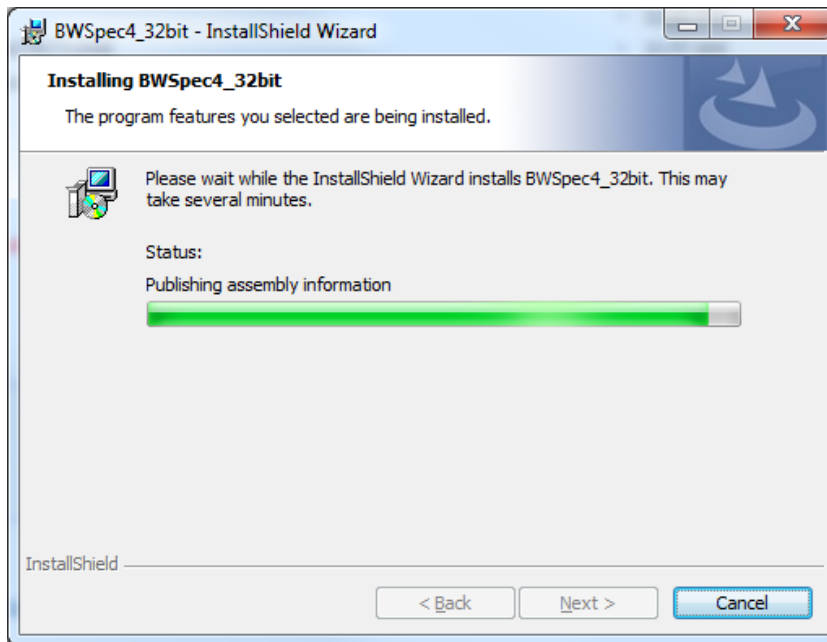


- Destination folder where BWSpec will be installed: C:\BWTEK\BWSpec4
- Click “Next”

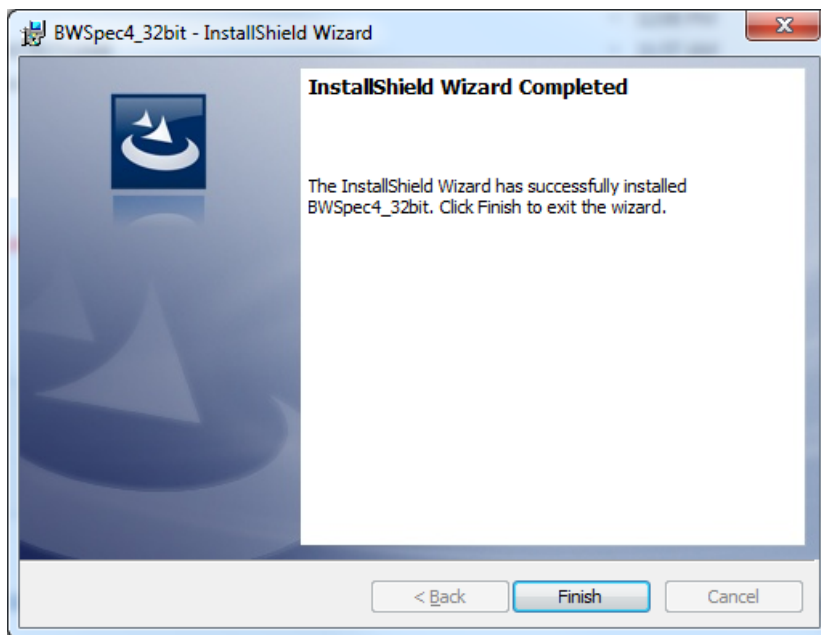


- Click “Install”





Installation progress bar:



- Installation is completed. Click “Finish”

**Do Not open the software program at this time! First install the Hardware**

**Drivers for the spectrometer.**

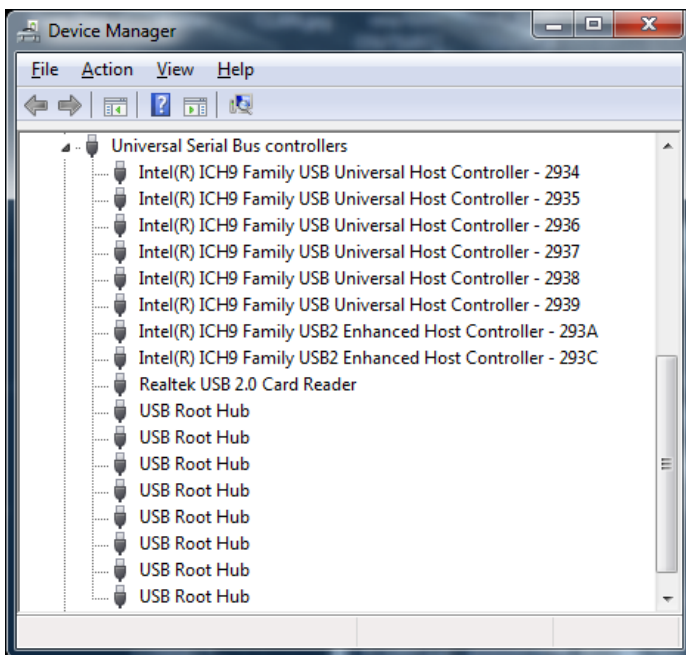
19 Shea Way, Newark, DE 19713 • Tel: (302) 368-7824 • Fax: (302) 368-7830 • Web: [www.bwtek.com](http://www.bwtek.com)



## 7. Open the Device Manager

### 7.1 Windows XP, Vista, 7, 8, 8.1, or 10:

- In the Search Bar type **Device Manager**, and click Enter.
- **Or** Press ‘Windows Key + R’, in the ‘Run’ window type: **mmc devmgmt.msc**, and Press OK
- The Device Manager window will open
- In the Device Manager window expand the “Universal Serial Bus controllers” [USB] section.
- Plug the spectrometer or Raman unit USB cable into the computer and power on the unit (if applicable).





## 8. Hardware Installation

Below there are several different installation guides for 32-Bit OS, 64-Bit OS, US2.0 and USB 3.0, and Windows 8/8.1 Pro/10. Normally the drivers will install automatically when the unit is powered on and plugged into the USB slot. If the drivers do not install automatically a manual driver installation may be attempted.

Find and follow the appropriate installation guide for your computer and spectrometer hardware.

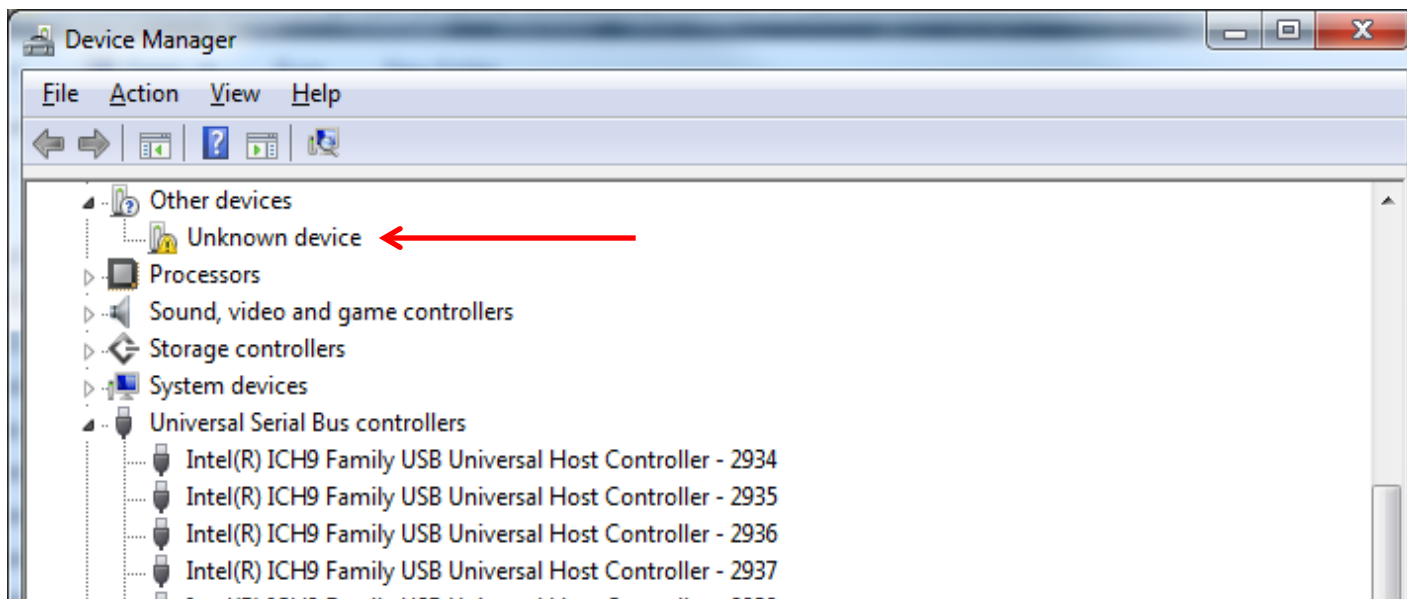
If you are not sure of your computers settings or capabilities, check with your IT Department.

- Definitions:  
Spectrometers which have USB 3.0 capabilities we refer to as ‘USB 3.0’  
Spectrometers which have only USB 1.1/2.0 capabilities will be referred to as ‘USB 2.0’ spectrometers.

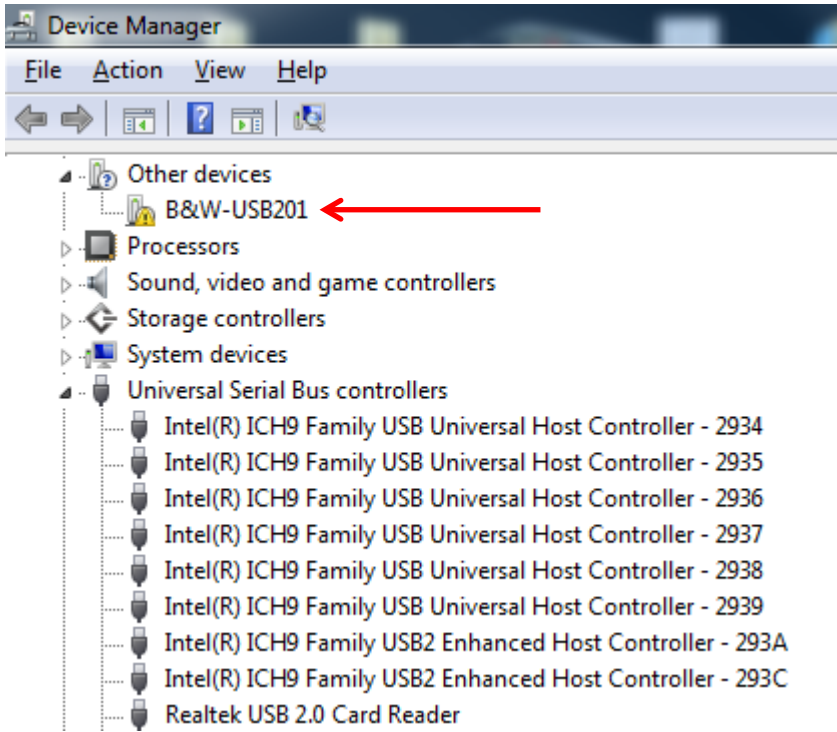
### 8.1 USB 2.0 Ported Spectrometer Hardware Driver Installation for 32-Bit OS and 64-Bit OS

- If your spectrometer has a Power Supply, properly connect to an outlet and the spectrometer.
- Connect the USB 2.0 Cable to any USB Port on your computer and then to your spectrometer.

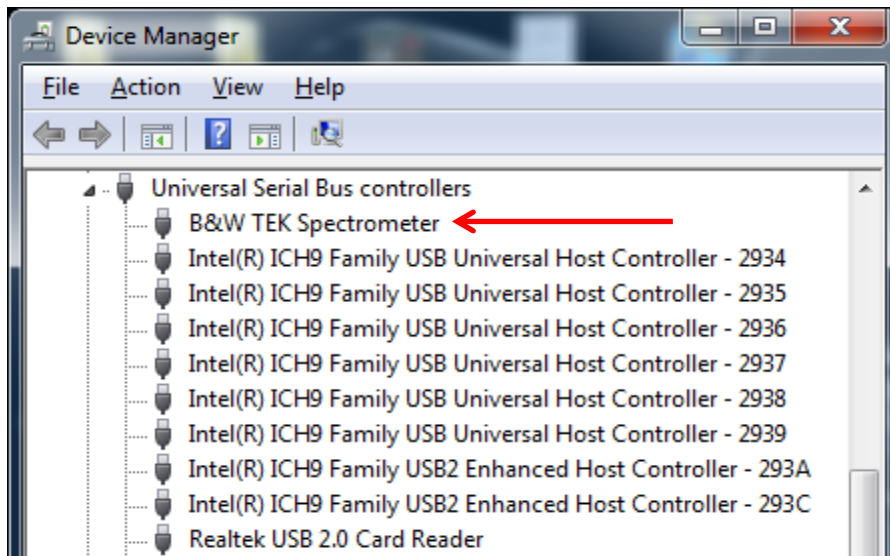
The spectrometer will first show up as an ‘Unknown device’



After about 30 seconds the 'Unknown device' will change to 'B&W-USB201' automatically.



After about 30 seconds the 'B&W-USB201' will change to 'B&W TEK Spectrometer' automatically.



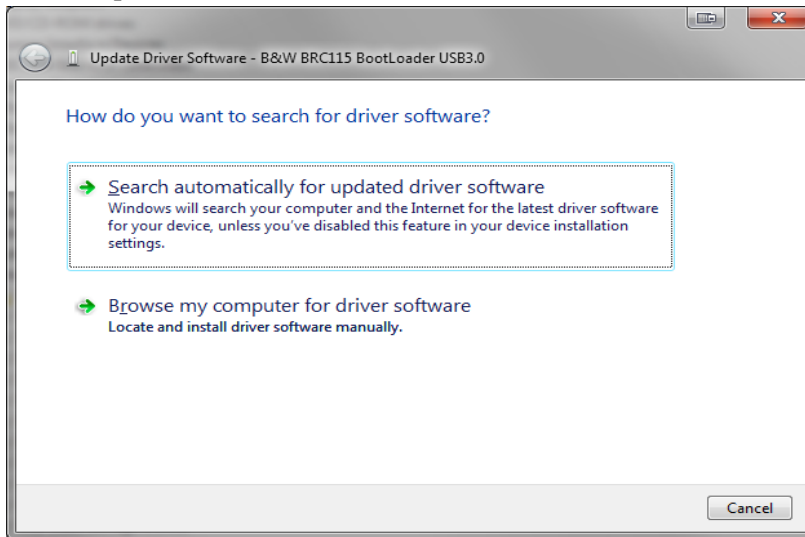
**You are now ready to Open BWSpec 4 and run the spectrometer.**



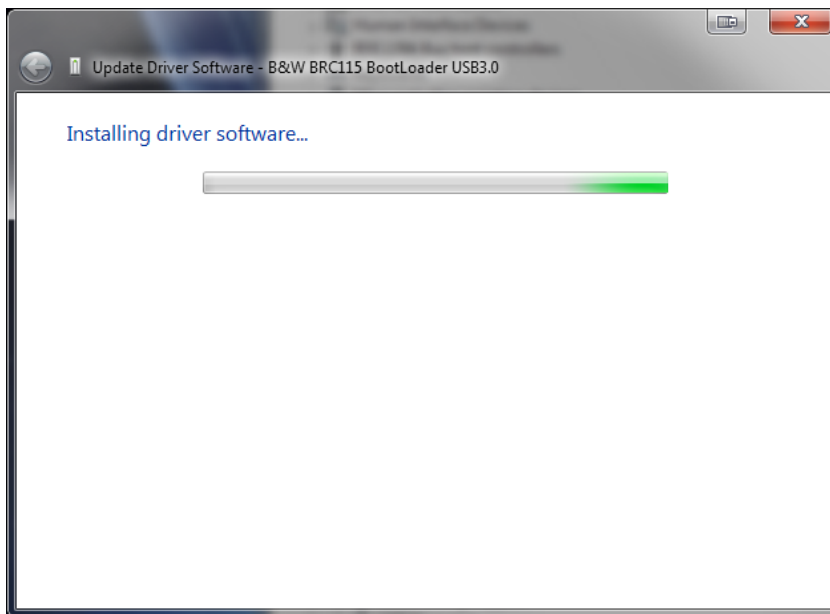
### 8.1.1 Manually Install USB 2.0 Driver for 32-Bit OS and 64-Bit OS

If your driver installation was unsuccessful, you may attempt to manually install the drivers. For more assistance feel free to contact our customer support team at [bwtek.com/support/](http://bwtek.com/support/).

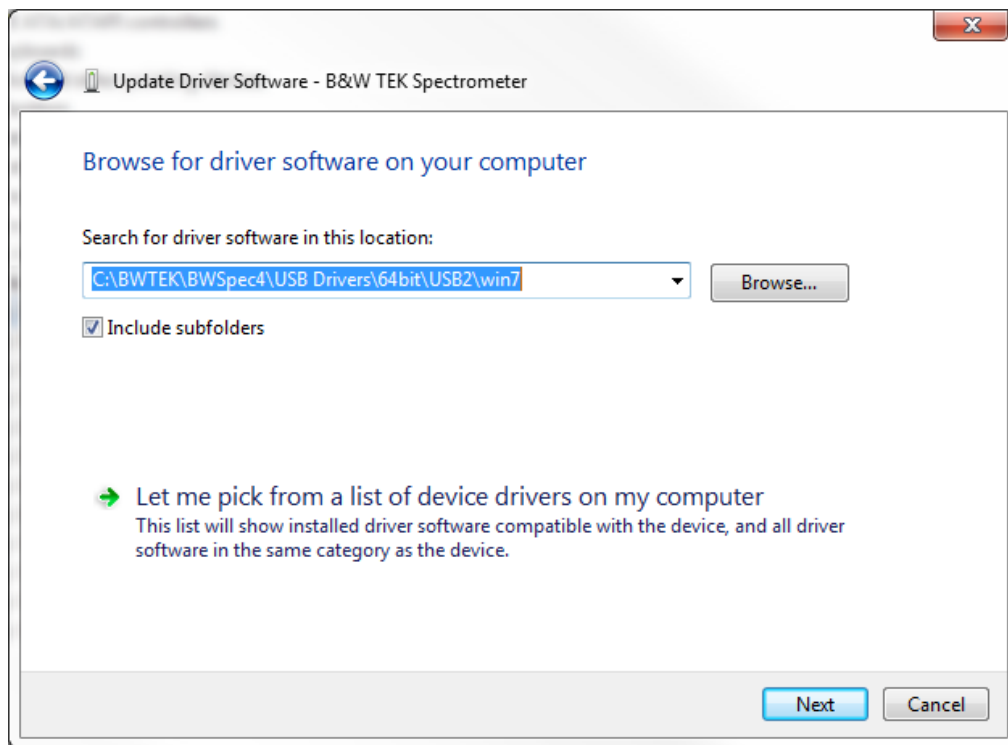
- Right Click on “Unknown Device” and select “Update Driver Software...”
- Search Options:



- Select “Search automatically for updated driver software”



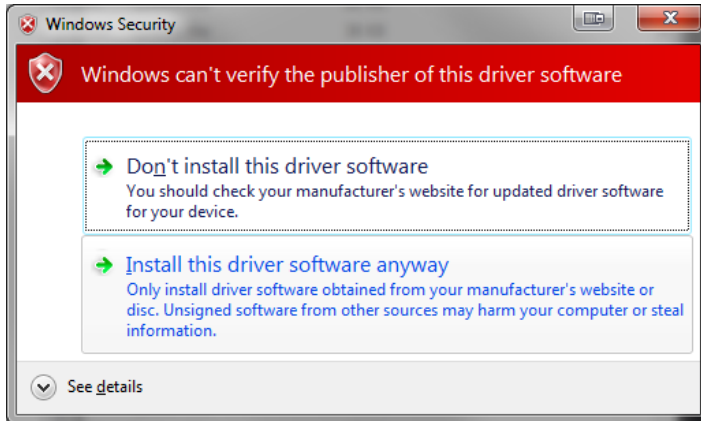
- If “Search automatically for updated driver software” was unsuccessful, select “Browse my computer for driver software” and select this location: C:\BWTEK\BWSpec4\USB Drivers
  - In the USB Drivers folder, select the sub folders for 32bit or 64bit depending on your computer, the sub folder USB2, and the sub folder for your windows version.
  - **Windows 10 users, please select the Windows 8 folder.**
  - For example on a 64 bit Windows 7 computer, the pathway would be: C:\BWTEK\BWSpec4\USB Drivers\64bit\USB2\win7.
  - Warning! Be sure to select the path that applies to your computers settings!



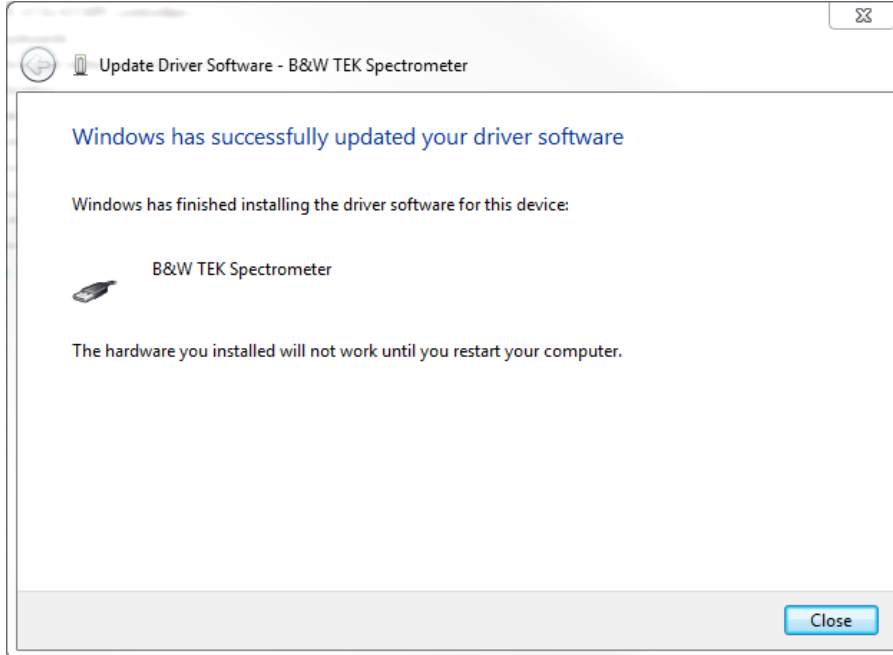
- Click “Next”



- Installation will begin
- You may see a Windows Security Prompt:



- Select “Install this driver software anyway”
- Driver will install successfully

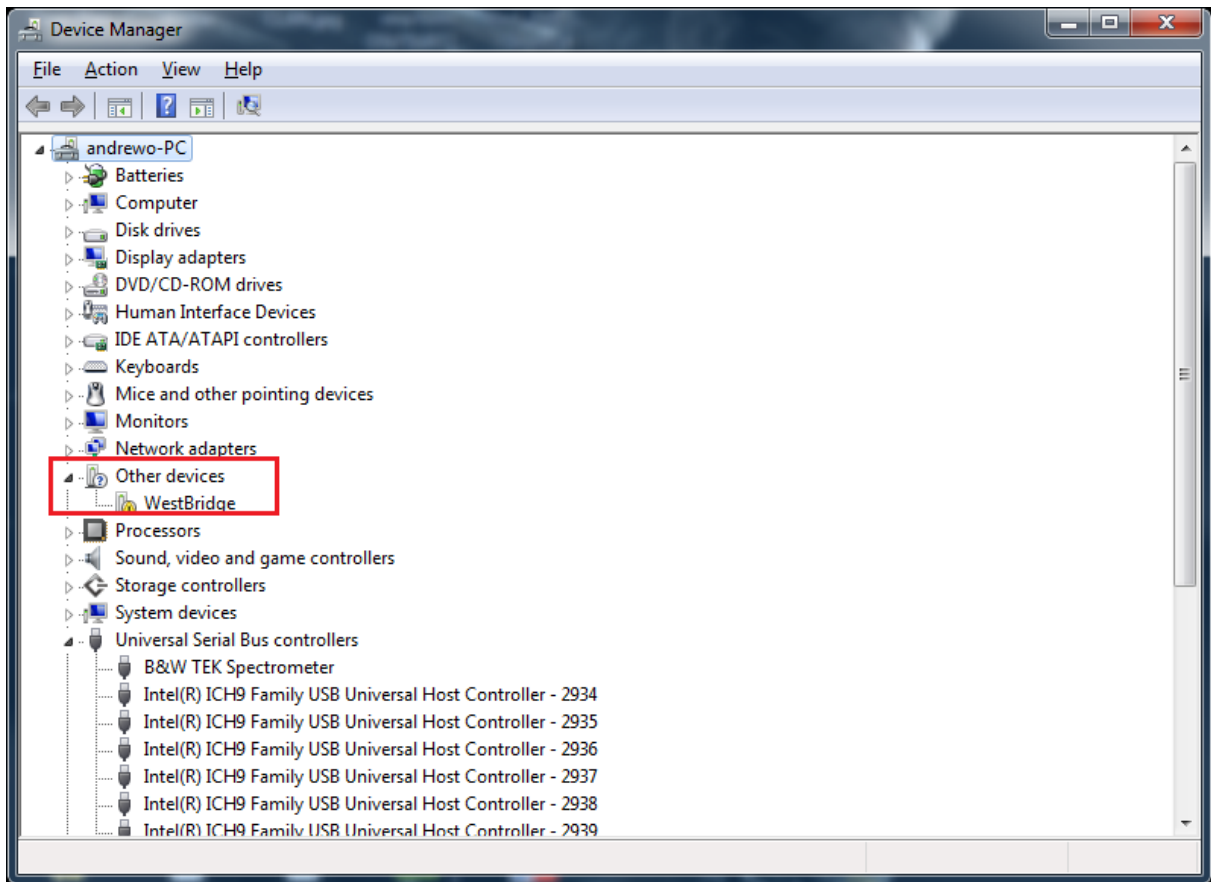


- Click “Close”

## 8.2 USB 3.0\* Ported Spectrometer Hardware Driver Installation for 32-Bit OS and 64-Bit OS

- If your spectrometer has a Power Supply, properly connect to an outlet and the spectrometer. Connect the USB 3.0 Cable to any USB Port on your computer and then to your spectrometer.

\*The USB Port on the PC does *Not* need to be a USB 3.0 port for the spectrometer to operate. Using less than a USB 3.0 port will simply reduce the transfer speed between the spectrometer and PC.

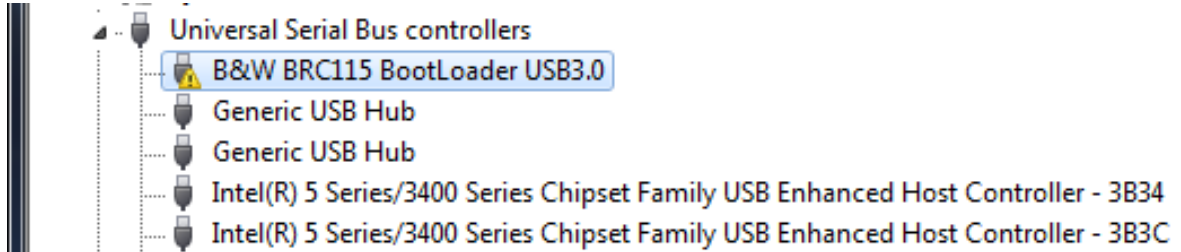


- After about 30 seconds the “WestBridge” driver will appear in the Device Manager.

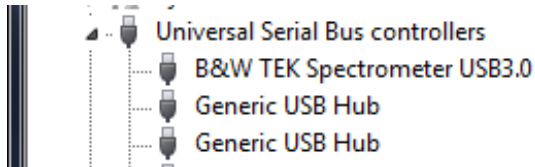




- After about 30 seconds the “WestBridge” will change to “B&W BTC665N BootLoader USB3.0” or “B&W BTC655N BootLoader USB3.0” or “B&W BRC115 BootLoader USB3.0” or similar and will then appear under USB Controllers in the Device Manager.



- After about 30 seconds, “B&W (model number) BootLoader USB3.0” will change into ”B&W TEK Spectrometer USB3.0” under USB Controllers.

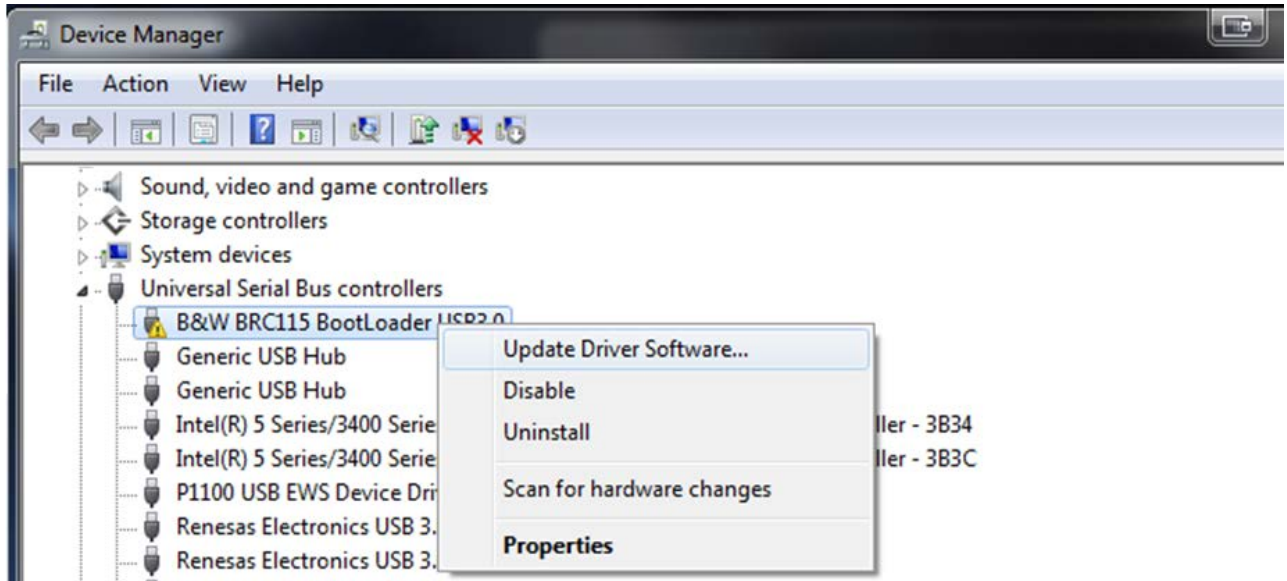


**You are now ready to Open BWSpec4 and run the spectrometer.**



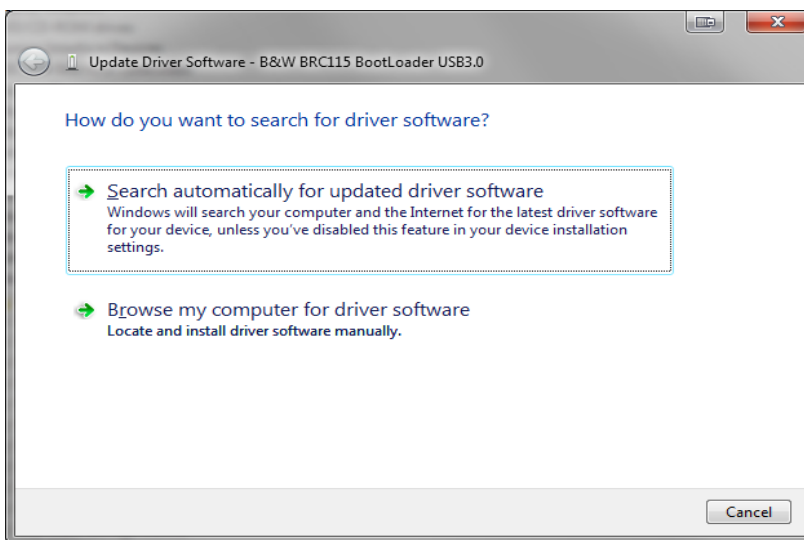
### 8.2.1 Manually Install USB 3.0 Driver for 32-Bit OS and 64-Bit OS

If your driver installation was unsuccessful, you may attempt to manually install the drivers. For more assistance feel free to contact our customer support team at [bwtek.com/support/](http://bwtek.com/support/).

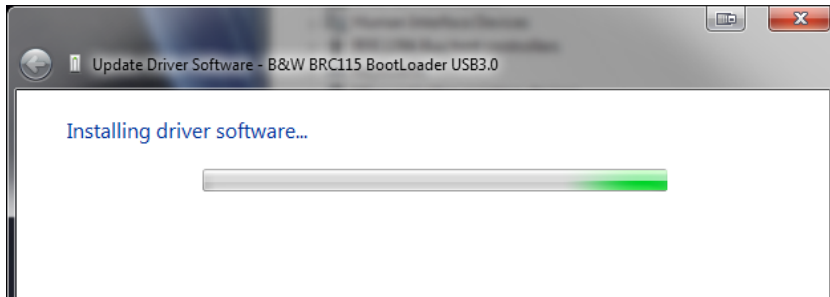


- Right Click on “WestBridge” or “B&W (model number) BootLoader USB3.0” and select “Update Driver Software...”

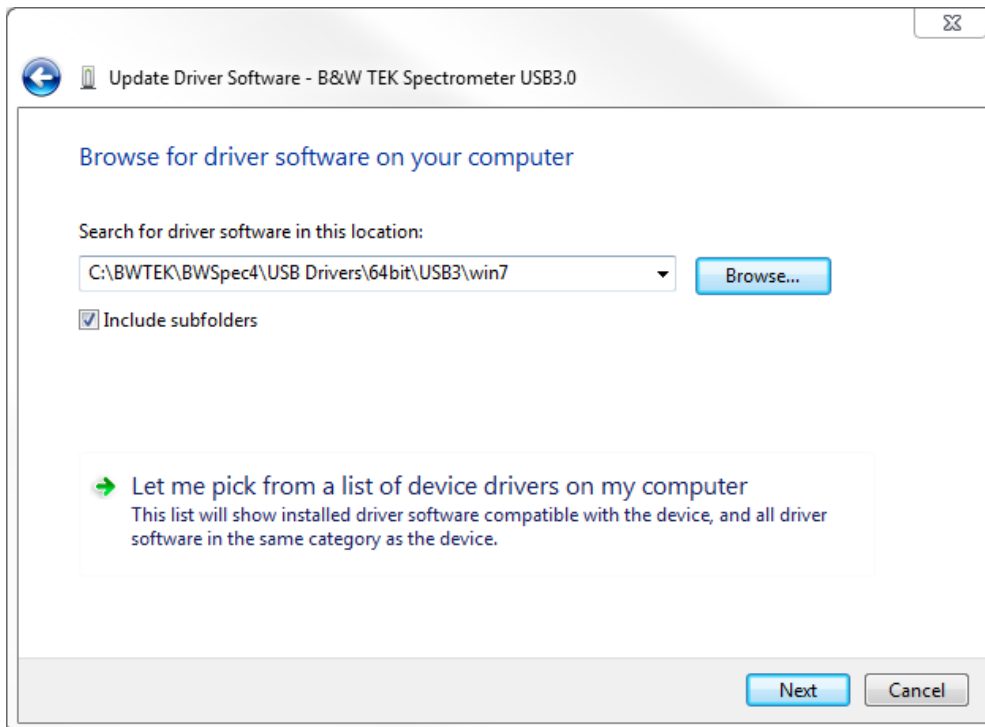
- Search Options:



- Select “Search automatically for updated driver software”

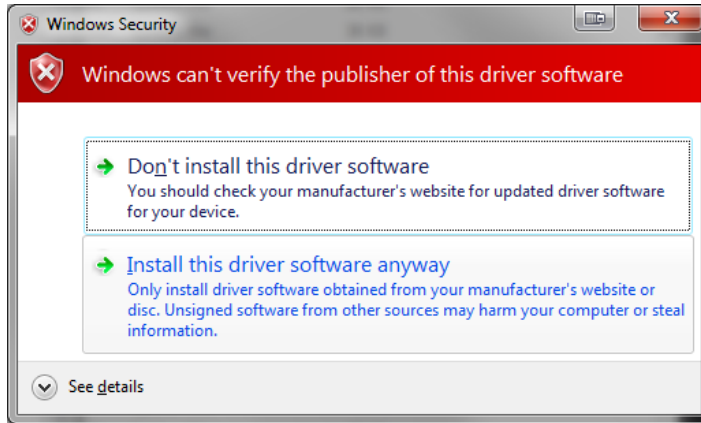


- If “Search automatically for updated driver software” was unsuccessful, select “Browse my computer for driver software” and select this location: C:\BWTEK\BWSpec4\USB Drivers
  - In the USB Drivers folder, select the sub folders for 32bit or 64bit depending on your computer, the sub folder USB3, and the sub folder for your windows version.
  - **Windows 10 users, please select the Windows 8 folder.**
  - For example on a 64 bit Windows 7 computer, the pathway would be: C:\BWTEK\BWSpec4\USB Drivers\64bit\USB3\win7.
  - Warning! Be sure to select the path that applies to your computers settings!

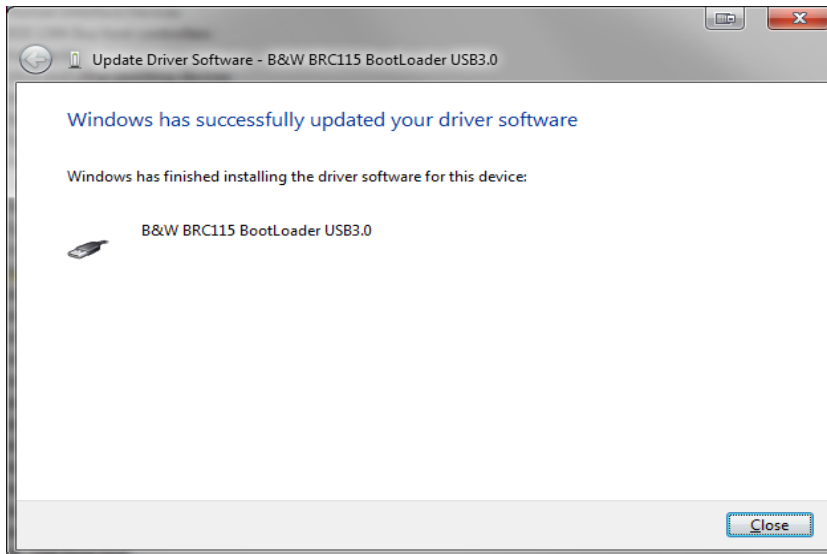




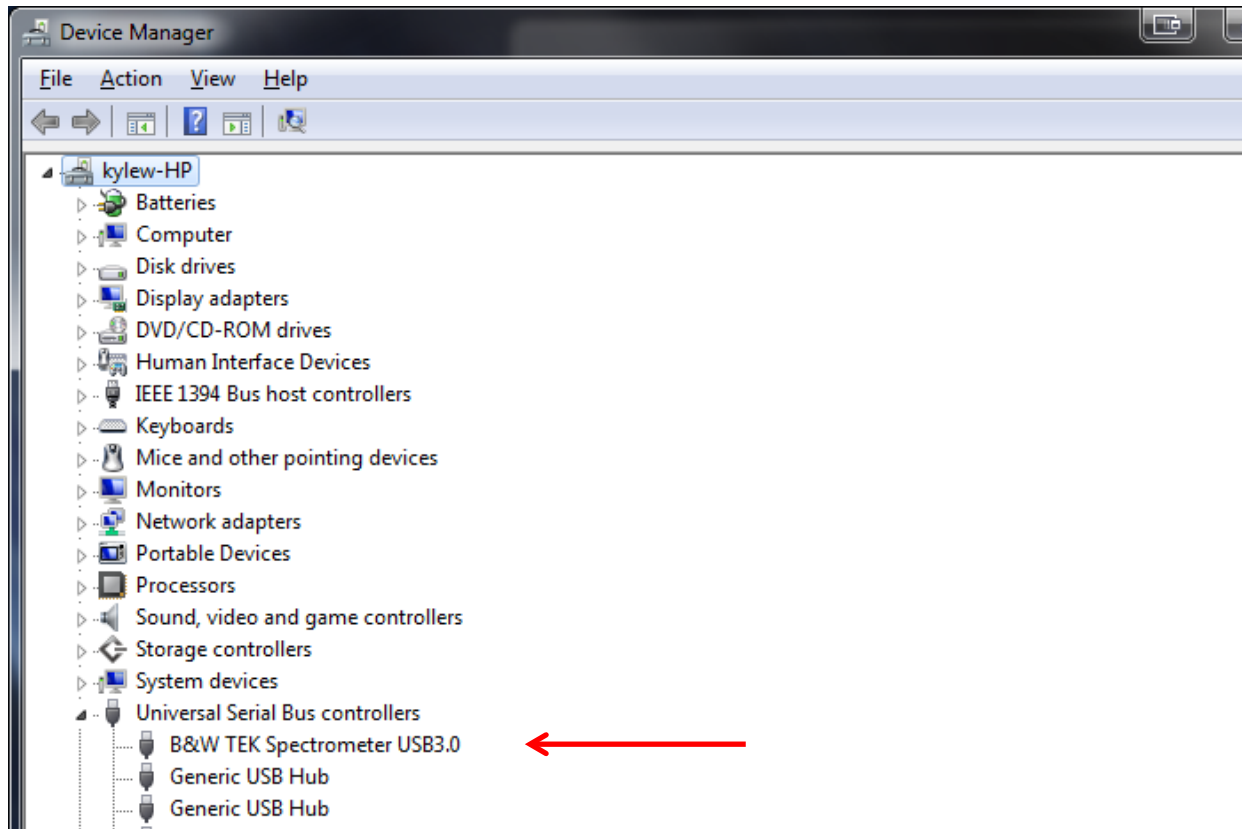
- Click “Next
- Installation will begin
- You may see a Windows Security Prompt:



- Select “Install this driver software anyway”
- Driver will install successfully



- Click “Close”



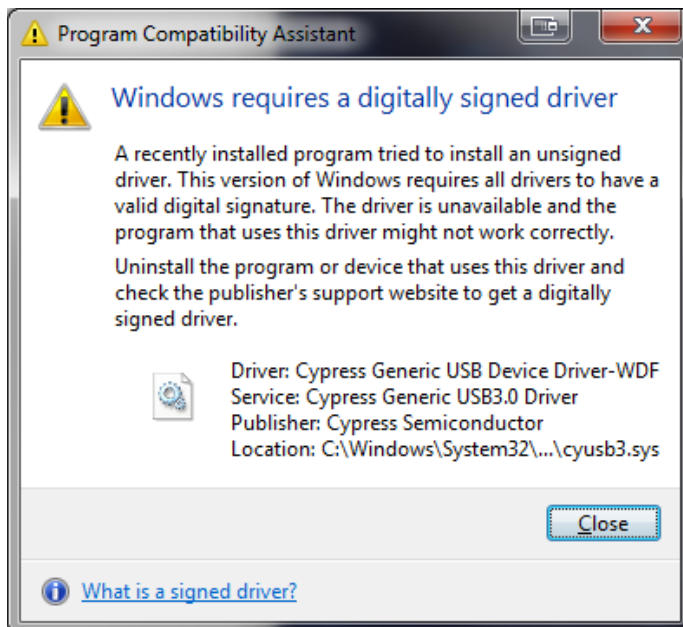
- B&W TEK Spectrometer USB3.0 will appear under USB Controllers.

**You are now ready to Open BWSpec 4 and run the spectrometer.**

### 8.3 Windows 8/8.1 Pro Driver Installation

For certain updates in Windows 8/8.1 Pro there are incompatibilities with the “Digital Driver Signatures”. By disabling this “feature” you can correctly install the spectrometer unit’s drivers. Apply these steps after you have properly installed the BWSpec4 software, and changed the Compatibility Mode to Windows 7 in [Section 4.1.2](#). Your Windows 8 computer may restart during this procedure. Please save all your work and close any open programs or applications.

- You may also receive the following “Program Compatibility Assistant” message concerning an unsigned driver:



- Click “Close”.

- Unplug spectrometer unit from PC
- Perform a Swipe action on your screen/touchscreen from the right side to the left to bring up the “Charms Bar”. Go to Settings and choose “Change PC Settings”
  
- For Windows 8:
- Choose “General” and go to Advanced startup. You will have to Restart during this option
  
- For Windows 8.1 Pro: (and some Windows 8 computers depending on which updates have been made)
- Choose “Update and Recovery” => “Recovery” and then go to Advanced startup. You will have to Restart during this option
  
- Choose “Troubleshoot” => Advanced options => Startup Settings
- Press the 7 or F7 key when prompted to **Disable driver signature enforcement**
- Your computer will restart.
- Plug in Spectrometer unit to PC
- The unit will show “Unknown Device” or “Westbridge”. Continue the installation instructions in Section 8.1 for USB 2.0 or Section 8.2 for USB 3.0.