# PicoScope<sup>®</sup> 6



Frequently asked questions

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#### 1. PicoScope 6 does not recognize my device

- 1. Verify that the LED light is lit on the front of the oscilloscope. There should be a red light.
- 2. Check the USB cable (ensure it is the supplied Pico blue USB cable). Try a different USB port.
- 3. If using a device with an external power supply, disconnect and reconnect the power supply.
- 4. If using a desktop PC, consider using the rear USB ports.
- 5. If using multiple USB devices on a PC and the PicoScope does not have an external power supply, consider using a powered USB hub.
- 6. Device Manager confirm that the device is listed either under Pico Technology Instruments (or Universal Serial Bus controllers for older models such as the PicoScope 2205).
- 7. Confirm that the operating system is Windows XP (SP 3), Vista, 7, 8 or 10 (32 or 64-bit).
- 8. Verify that the .NET framework version is 2.0 (Windows XP) or 3.5 or later by going to the **Add/Remove Programs** window in **Control Panel** and verifying which one is installed.
- 9. Ensure all the latest Windows updates have been applied to the PC.
- 10. Is the PC connected to the internet when installing or starting PicoScope 6?

Device Manager	
e <u>A</u> ction <u>V</u> iew <u>H</u> elp	
🔿 📰 🖾 🖬 🥵 😭 🍕	
🖌 🏺 Universal Serial Bus controllers	
📮 Generic USB Hub	
📮 Generic USB Hub	
🏺 Intel(R) ICH10 Family USB Enhanced Host Controller - 3A6A	
🟺 Intel(R) ICH10 Family USB Enhanced Host Controller - 3A6C	
🟺 Intel(R) ICH10 Family USB Universal Host Controller - 3A64	
🏺 Intel(R) ICH10 Family USB Universal Host Controller - 3A65	
🟺 Intel(R) ICH10 Family USB Universal Host Controller - 3A66	
🟺 Intel(R) ICH10 Family USB Universal Host Controller - 3A67	
🏺 Intel(R) ICH10 Family USB Universal Host Controller - 3A68	
🟺 Intel(R) ICH10 Family USB Universal Host Controller - 3A69	
🚽 🟺 PicoScope 2000 series PC Oscilloscope	
USB Mass Storage Device	
🟺 USB Root Hub	
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💗 USB Root Hub	
💗 VIA USB 3 Root Hub	
VIA USB eXtensible Host Controller	
USB Virtualization	

Figure 1 - Example for devices using the older Picopp USB driver

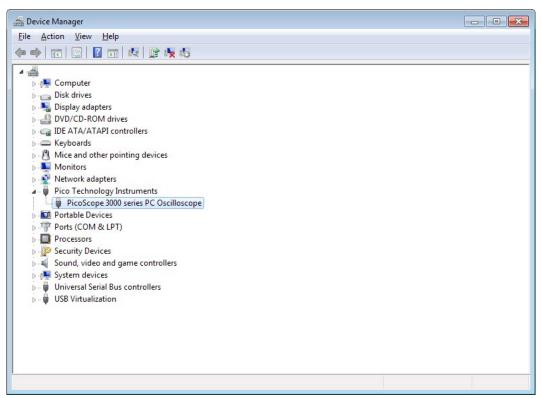
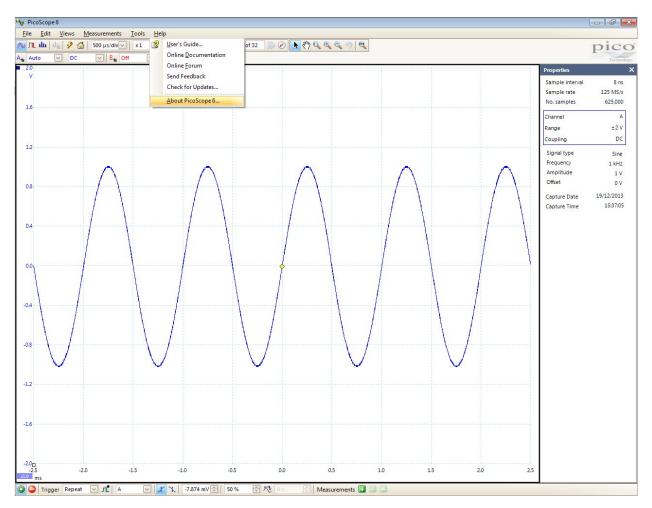


Figure 2 - Example for devices using the WinUSB driver

## 2. Finding the PicoScope 6 version

In the PicoScope 6 menu, click Help > About PicoScope 6...

Text can be copied and pasted to support@picotech.com.





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### 3. Locating the trace.xml file

If you are still experiencing issues, you can send in the trace XML file in order to help us determine the cause. Trace.xml files can be located in the following directories:

- Windows XP: C:\Documents and Settings\<User name>\Local Settings\Application Data\Pico Technology\
- Windows Vista, 7, 8 and 10: C:\Users\<User name>\AppData\Local\Pico Technology\

To access the Application Data/AppData folder and subfolders, the option to view hidden folders within Windows must be enabled:

Windows XP:

- Go to C:\Documents and Settings\<User name> in Windows Explorer
- Click Tools > Folder Options...

Windows Vista or 7:

- Go to C:\Users\<User Name> in Windows Explorer
- Click Organise and select Folder and search options
- Click the View tab, then under Hidden Files and Folders, select the tick box to Show hidden files and folders, and click OK:

	You can apply the view ( you are using for this fold		
	Apply to Folders	such as Details or Icons) t er to all folders of this type <u>R</u> eset Folders	
Advanced setti	ngs:		
Alway: Displa Displa Displa Hidder Sr Hide e Hide e	s show icons, never thun s show menus y file icon on thumbnails y file size information in fo y the full path in the title t n files and folders on't show hidden files, fol now hidden files, folders, mpty drives in the Compo ottensions for known file t	older tips bar (Classic theme only) ders, or drives and drives uter folder types	* III
Hide p	rotected operating syste	m files (Recommended) Restore <u>D</u> efau	ts

Windows 8 or 10:

- Click the **View** tab and ensure that the **Hidden items** option is ticked
- This option can then be turned off when the file has been located.

In the **Pico Technology** folder, there will be one or more folders with long alphanumeric names that will contain a trace.xml file. Check the contents of the folders and send the file that corresponds to your last session (check the timestamp on the file).

Note: PicoScope saves a preferences.xml file in the same folder as trace.xml. preferences.xml can also be useful in some troubleshooting cases.

Sending a PicoScope 6 data file (.psdata) from your session may also help us to determine the cause of the issue. Go to **File > Save As** and set the file type to **.psdata**.

## 4. Generating a PicoScope installer log file

If there is still a problem with the settings of your PC that is preventing PicoScope from being installed, you will need to send an installation log file to enable us to work out the problem. Here is how to generate an install.log file:

- Open a Windows command prompt as an Administrator. In Windows 10 the method for this is: click the **Start** button, type cmd, right-click the **Command Prompt** app and select **Run as administrator**.
- Change directory to where the PicoScope installer is located. For example:

cd C:\Users\Downloads

• Type :

PicoScope6Beta\_r6\_XX\_X.exe /v"/L install.log"

(where the xx\_x in the file name matches the version number you have) and press Enter.

• When the installer has finished running, whether the software has installed properly or not, there will be an install.log file in the current directory. Email that file to support@picotech.com and we can then see what has gone wrong with the installation.

#### 5. Locating the DPInst (driver installer) log file

The DPInst log file, which contains information from the Windows driver installer, can be found here:

C:\Windows\DPINST.LOG

#### 6. PicoScope 6 installation from the supplied CD fails

In the event of PicoScope 6 failing to install from the CD, please download the latest installation executable from **www.picotech.com/downloads**.

#### 7. The PicoScope 6 installation fails to finish correctly

- Ensure that you are using Administrator privileges to install the software.
- Is there any anti-virus software running on your PC at the time of installation? Try disabling it, as this may be causing the issue.

If there are still issues with the installation please contact **support@picotech.com**.

#### 8. Can I install PicoScope 6 and PicoScope 6 Beta alongside each other?

Yes - both are installed into their own separate installation directories.

#### 9. Why can I only set the number of samples to a maximum of 2 MS (or 5 MS)?

This is a limitation when filtering or maths channels are being used in order to reduce the number of calculations taking place.

Filtering and maths channels can be applied post-capture.

PicoScope 6.10 and earlier versions have a limit of 2 MS (million samples), while later versions allow 5 MS.

#### 10. Why is my scope not triggering?

- Set the trigger to **None** and verify that the signal is appearing on the trace as expected.
- Ensure that the signal passes through the expected threshold levels or, if using a pulse width qualifier, that the signal is at the desired level for the expected period of time.
- Set up a simple level trigger and verify that the scope triggers on the channel as the signal passes through the level threshold.

#### 11. How can I view my data in spectrum mode after capture?

In PicoScope 6, click Views > Add View > Spectrum. This can also be applied to data loaded in from a PicoScope 6 (.psdata) file.

## 12. How can I display a unipolar voltage range?

PicoScope normally displays the vertical axis with 0 volts in the middle, positive full scale at the top and negative full scale at the bottom, as in Figure 3 below. If you are interested in viewing only positive voltages, you can scale the positive half of the range to fill the screen as follows:

- 1. Click the channel scaling button next to the axis of the trace to be adjusted. This button is the same color as the channel trace and by default contains the text "x1.0": x1.0
- 2. Change the number in the Scale box to 2.00.
- 3. Change the number in the Offset box to -25.00 %.

A waveform that filled the positive half of the input range will now fill the entire height of the scope view, while negative input voltages will be invisible. See Figure 4 below.

This method works regardless of the voltage range in use. For example, it will convert a displayed range of -1 V to +1 V to a displayed range of 0 V to +1 V.

Note: By ignoring half of the input range, you are halving the dynamic range of the input, which is equivalent to reducing the effective resolution by one bit. If, for example, the resolution of your oscilloscope is 8 bits, this method will reduce the effective resolution of the selected input channel to 7 bits.

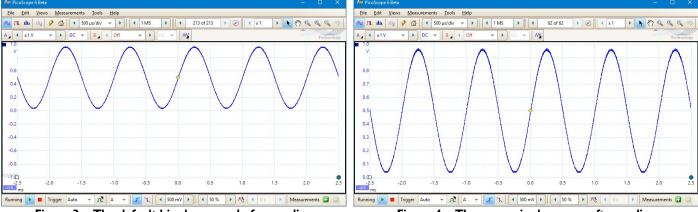


Figure 3 - The default bipolar range before scaling

Figure 4 – The new unipolar range after scaling

#### 13. How do I open an old .psd file?

PicoScope 5 and earlier saved data in .psd files, which had a different format to the .psdata files now in use. You can open .psd files in PicoScope 6, or convert them to the latest format using the PicoScope 6 command line program, if PicoScope 6 supports the device that was used to capture the data. The PicoScope 6 User's Guide lists supported devices in the "Device feature table" section.

Examples of command line syntax for converting files:

- To .psdata: picoscope /c \*.psd /f psdata /b all
- To text: picoscope /c \*.psd /f txt /b all



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