PicoScope 7 Documentation

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1. Welcome to the PicoScope Documentation

This user's guide is designed to help you use the PicoScope 7. With a scope device from Pico Technology, PicoScope turns your PC into a powerful PC oscilloscope and spectrum analyzer, with all the features and performance of a benchtop oscilloscope at a fraction of the cost.

For PicoScope products and tools, go to https://www.picotech.co.uk

⬅️*Use the contents menu on the left to navigate through the documents.*

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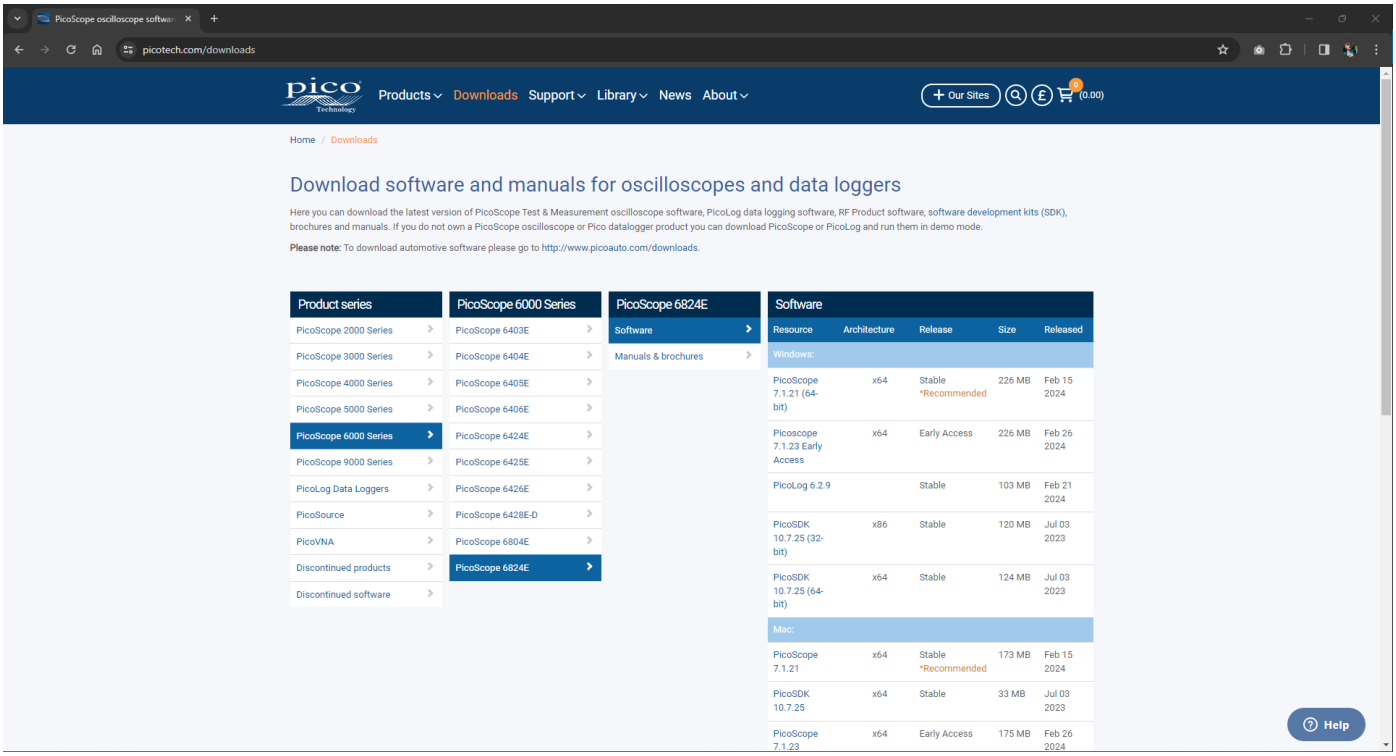
2. PicoScope 7 Quick-Start guide

This is a tutorial on how to install, launch and run the PicoScope 7 software for the first time. It is an ideal tutorial for new users to PicoScope 7 and PicoScopes entirely. For more information please contact our tech support team at support@picotech.com

2.1 Installing PicoScope 7

2.1.1 Windows

1. Go to https://www.picotech.com/downloads.
2. Select your **series** and **device** from the lists provided.
3. In **Software** download the **stable** (recommended) version of PicoScope 7.



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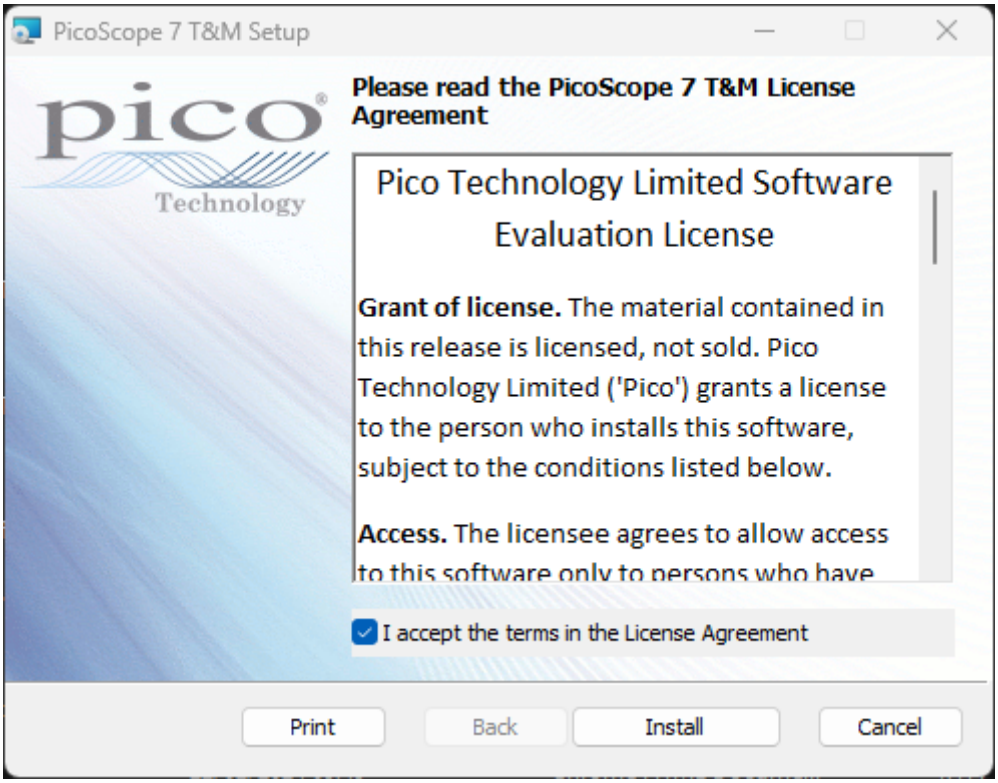
4. Run the installer and PicoScope 7 will be installed on your PC.

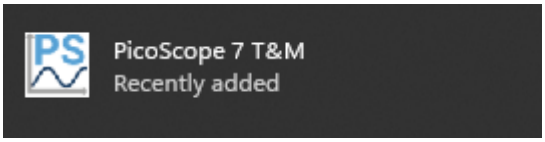


2.2 Plugging in your PicoScope

1. Use the included USB-A to USB-B cable and plug your PicoScope into your PC.
2. If your device comes with a mains plug adapter, please plug it in for full PicoScope functionality and power on.
3. When successfully plugged in, you may hear an audiable two tones to signify your PC recognising the device.
4. You will see the LED on the front panel of your PicoScope lit with a solid colour.
5. Your PicoScope is now plugged in, now you can Launch PicoScope 7.

2.3 Launching PicoScope 7

1. Find the PicoScope 7 icon on your desktop or start menu, and click to launch PicoScope 7.



2. PicoScope 7 will open and search for a device on start-up.
3. If your PicoScope is detected, and it's the only PicoScope plugged in, it will connect and run that PicoScope.

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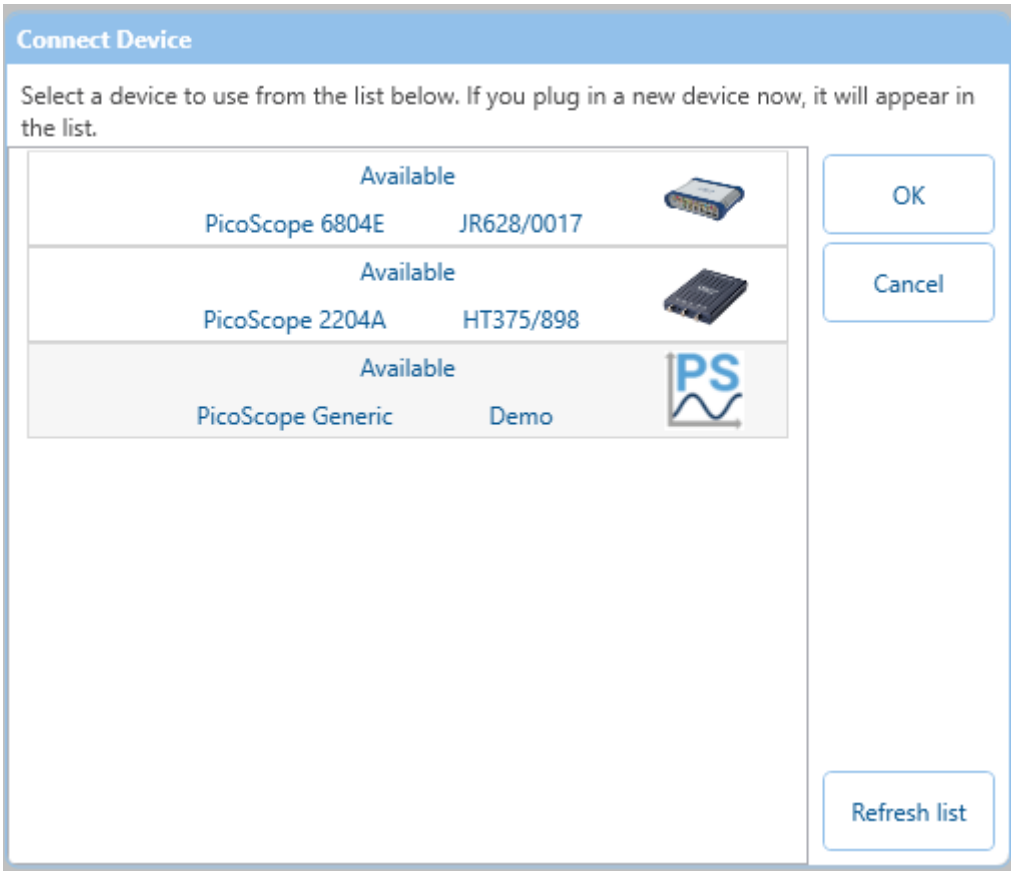
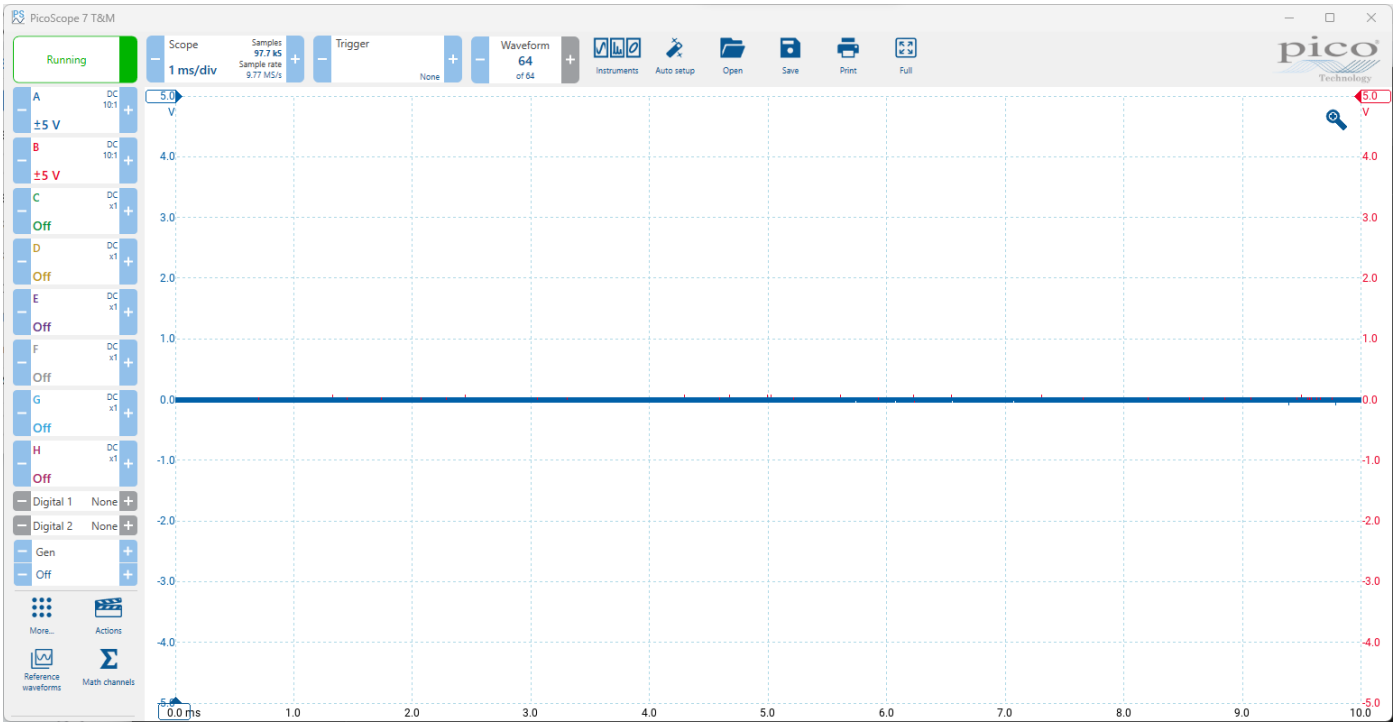
4. If there is more than 1 PicoScope attached, you will need to select which PicoScope you are using.



5. Once a PicoScope is connected, the software will now be running.



2.4 Adjusting voltage and timebase

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3. Oscilloscope basics

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3.1 Timebase

3.1.1 Sample rate

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3.2 Oscilloscope triggering basics

3.2.1 Trigger level

3.2.2 Pre-trigger

3.2.3 Trigger modes

3.2.4 Trigger types

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3.3 Rulers

3.3.1 Phase rulers

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4. Training and Demos

4.1 PicoScope MSO training and demo board

Pico Technology provide a training and demo board designed to make the most of all the features of an oscilloscope. This is the perfect tool to pick up when learning about oscilloscope basics and advanced features and techniques.

Below is a video overview showcasing what the MSO training and demo board can do and how to get started with the basic techniques.

For more information on the training and demo board, head to picotech.com

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5. Reference

5.1 PicoScope 7 troubleshooting

When using a PicoScope and PicoScope 7 software, you may experience some issues that can be found below. For more information please contact support@picotech.com

5.1.1 PicoScope device troubleshooting

No light or USB detected of PicoScope when plugged in

This is usually due to no power to the PicoScope, try the following:

- Check PicoScope 7 software isn't **Stopped**.
- Check the USB cable is fully inserted at both ends
- Check USB cable isn't damaged.
- Try a different USB port on your PC.
- Try a different PicoScope USB cable.
- If a power plug adaptor came with the PicoScope, plug it in (needed for the 3000E and 6000E series).

If none of these actions worked, please contact your PicoScope distributer for advice.

5.1.2 PicoScope 7 software troubleshooting

This section provides troubleshooting for PicoScope 7 software issues, if these issues persist, please contact support@picotech.com or click **Send feedback** in the PicoScope 7 **More...** menu.

Trace on screen stutters and moves around too much

This is because the trigger settings aren't correctly set. - Open the **Trigger** lozenge and select

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5.2 Glossary

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- *Lozenge*: Refers to the rounded-corner rectangles on the PicoScope 7 screen. These can be clicked to open a configuration window.
  e.g. the Trigger lozenge can be clicked to open the Trigger configration panel

T

- *Timebase*: The timebase is the time measurement for each X-axis division on the PicoScope graph. As the graph is split into 10 divisions, the timebase can be increased or decreased to show more or less time of the trace on the screen.
  e.g. A timebase of 1 ms/div shows more of the signal than 500 µs/div.

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