

PicoScope Education Kit

PC Oscilloscope experiments for secondary schools, colleges and universities



Now every classroom can obtain world-class equipment at an affordable price

Supplied with equipment for three experiments:

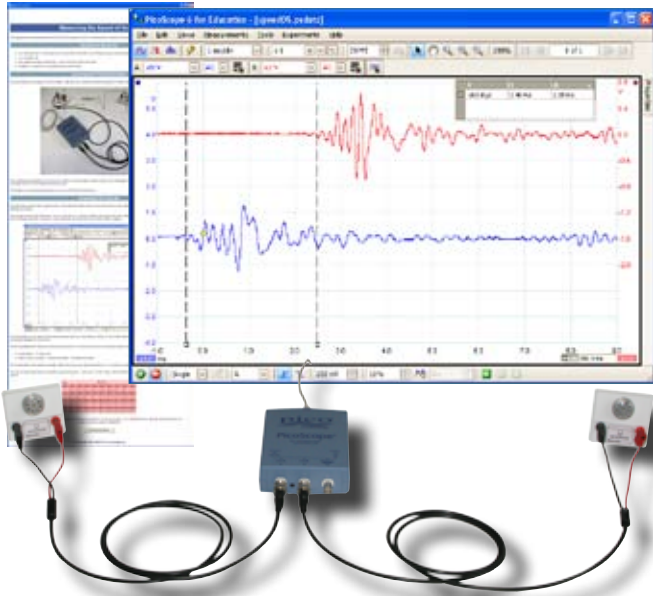
Speed of sound
Faraday's Law
AC dynamo

and includes guidance for four more experiments:

Value of a capacitor
Serial data waveform
Speed of a pulse along a cable
Acceleration due to gravity

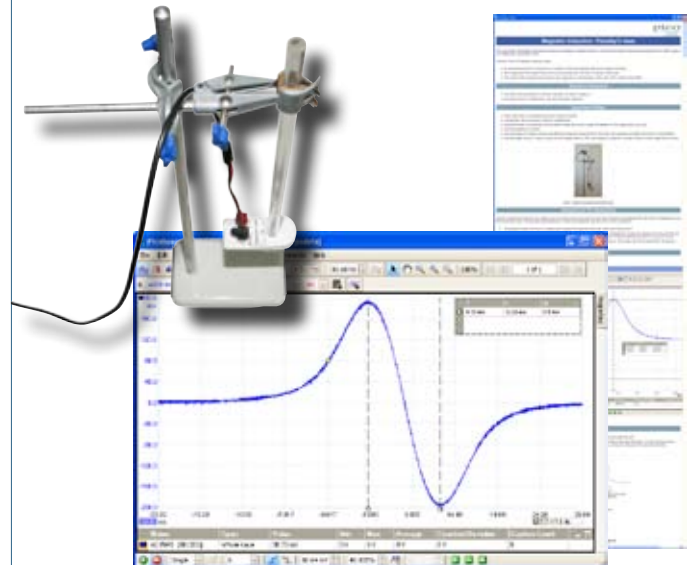
Speed of sound

The speed of sound experiment uses two microphones (included) to measure the speed of sound.



Faraday's Law

The Faraday's Law experiment demonstrates that the EMF induced in a conductor linked by a changing magnetic flux is proportional to the rate of change of the flux.



AC dynamo

The AC dynamo experiment builds on the results of the Faraday's Law experiment. Repeated pulses of EMF are induced in a coil by a rotating magnet, resulting in an AC voltage output.



Additional experiments

- Measuring the value of a capacitor
- Serial data
- Speed of a pulse along a cable
- Acceleration due to gravity

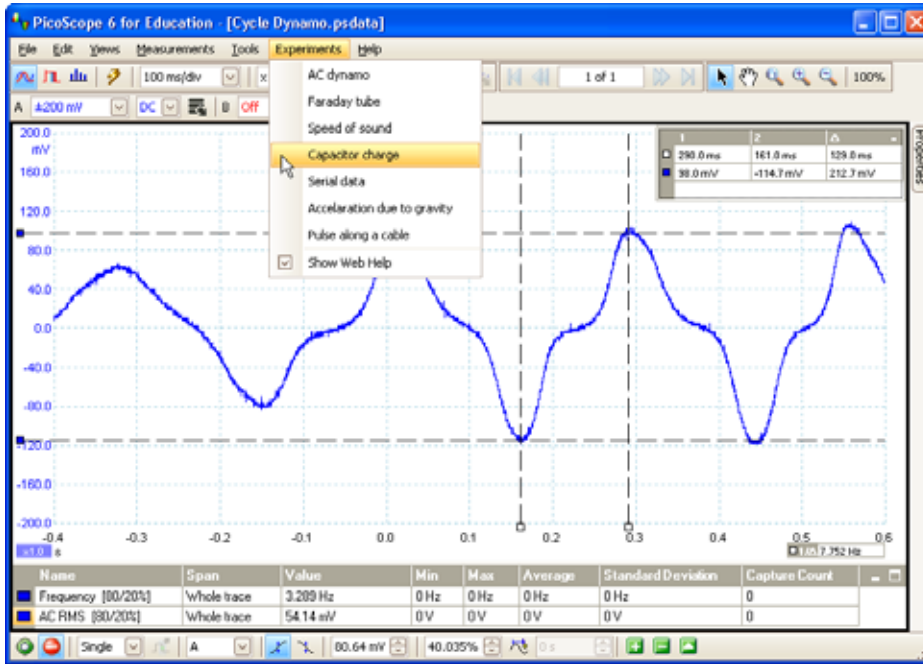
These four experiments are fully documented, with instructions and automatic setups built in to the software. You just need to supply the apparatus!



Kit contents

- PicoScope 2205 Sampling PC Oscilloscope
- Speed of sound apparatus
- Faraday's Law apparatus
- AC dynamo apparatus
- PicoScope Education Kit Software CD
- Installation Guide
- BNC to 4-mm plug cables (2)
- BNC to crocodile clip cable
- USB cable
- Durable carry case

PicoScope for Education



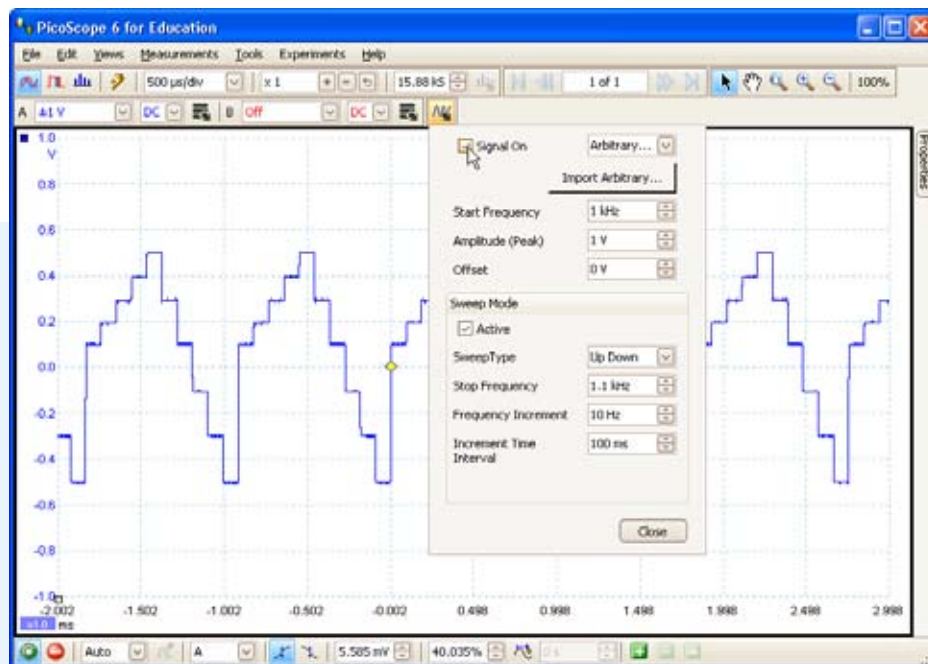
Starting an experiment is as easy as selecting an item the drop-down menu.

Features built in to the software include:

- X and Y rulers
- automatic measurements
- digital colour and analogue intensity persistence display modes
- spectrum analyser

Built-in signal generator

The built-in function generator and arbitrary waveform generator can replace several bulky pieces of equipment on your workbench. Generate standard waveforms such as sine, square and triangle, or load your own custom waveform from a text file.



PicoScope 2205 PC Oscilloscope



Channels (vertical)		Number of channels Bandwidth Sensitivity Accuracy Nominal input impedance Overload protection Input coupling Input connectors	2 25 MHz 10 mV/div to 4 V/div 3% 1 M Ω 20 pF \pm 100 V on single input AC or DC, software-controlled BNC
Timebase (horizontal)		Timebases Timebase accuracy	500 ns/div to 200 s/div 100 ppm with 3 ps jitter
Trigger		Trigger sources Modes	Ch A or Ch B Rising edge, falling edge, edge with hysteresis, pulse width, dropout, windowed, logic
Acquisition		ADC resolution Sampling rate Buffer size	8 bits (up to 12 bits with resolution enhance mode) 200 MS/s (4 GS/s with equivalent-time sampling) 8000 samples in block mode, 2 M samples in streaming mode
Display		Display resolution Display styles	Up to 4000 points horizontally. Number displayed subject to screen size. Real-time, digital colour, analogue intensity
Measurements and analysis		Rulers Automatic measurements FFT	2 per channel on Y axis + 2 on X axis 26 automatic measurements in time and frequency domains Spectrum view built in
Signal generator		Connector type Built-in signal types Output range Offset Output resistance Frequency range Frequency sweep	BNC (shared with arbitrary waveform generator) Sine, square, triangle, ramp up, ramp down, DC voltage \pm 250 mV to \pm 2 V \pm 1 V within \pm 2 V output range 600 Ω DC to 100 kHz Up, Down, Up-Down, Down-Up
Arbitrary waveform generator		Connector type Vertical resolution Buffer size Output range Offset Output resistance Sample rate Frequency sweep Input waveform format	BNC (shared with signal generator) 8 bits 4 K samples \pm 250 mV to \pm 2 V \pm 1 V within \pm 2 V output range 600 Ω DC to 2 MS/s Up, Down, Up-Down, Down-Up Normalised CSV file format (comma-separated values, compatible with Microsoft Excel)
General		Operating temperature range Power PC connection PC requirements Dimensions Weight Approvals	+5 $^{\circ}$ C to +45 $^{\circ}$ C Powered from USB port USB 2.0 (compatible with USB 1.1) Windows XP (SP2) or Vista, 32-bit versions 100 mm x 135 mm x 45 mm 210 g FCC, CE

Ordering information	£	\$	€
PP471 PicoScope Education Kit	395	790*	585*

* Dollar and euro prices are subject to exchange rate fluctuations. Please contact Pico Technology for the latest prices before ordering. Errors & omissions excepted.

www.picotech.com

