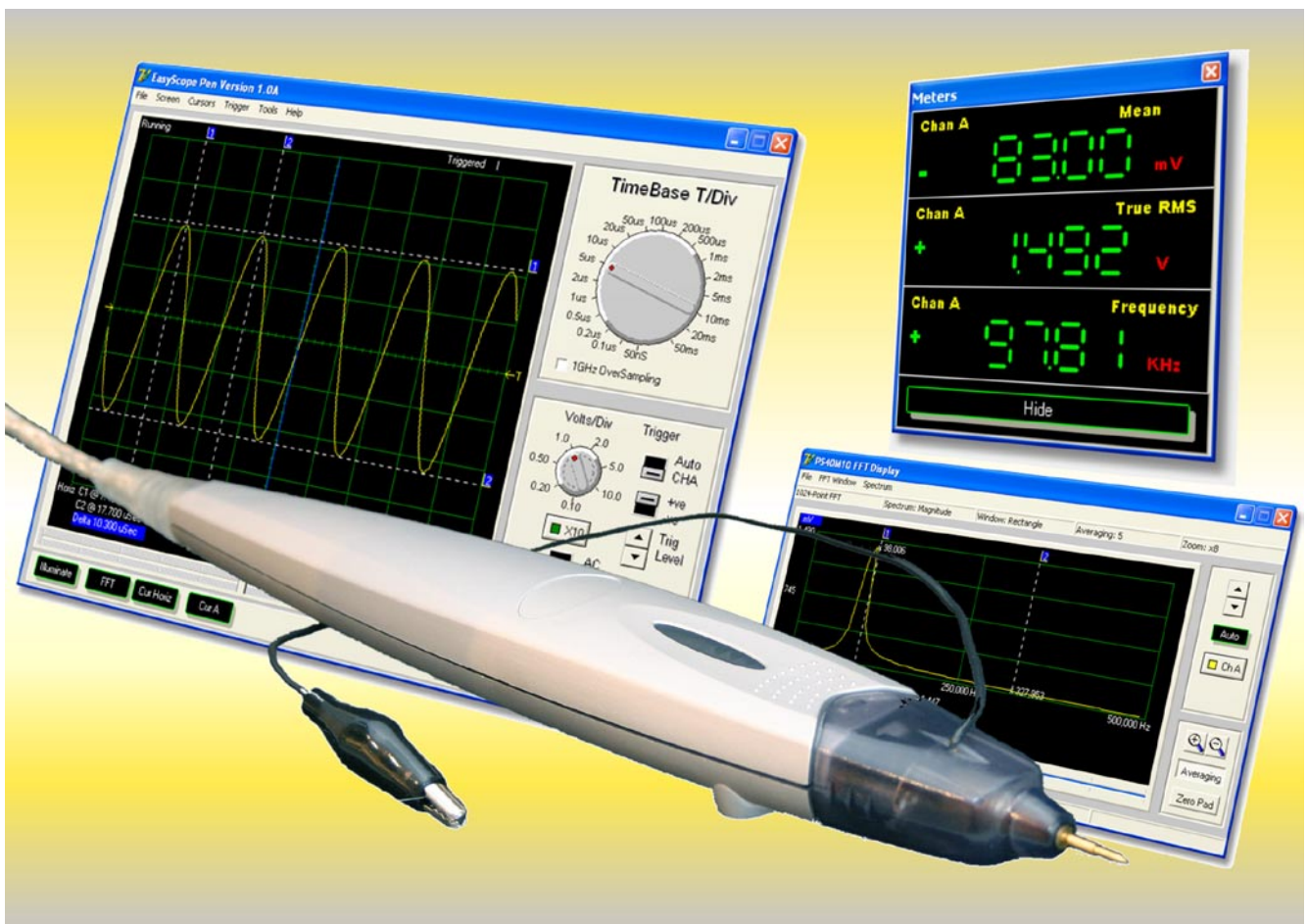


PS40M10 "SwordFish" Multi-Function Instrument

Getting Started Guide



PS40M10 "SwordFish" Hand Held USB Oscilloscope

The PS40M10 "SwordFish" is a unique hand held device that combines the functions of Oscilloscope, Data Logger, Spectrum Analyser, Volt Meter and Frequency Meter in a single instrument. "SwordFish" features a user replaceable precision spring loaded probe tip which can be used to probe even small smd components. The probe tip and cover can be removed, revealing a standard phono (RCA) socket. A phono to BNC adapter (supplied) allows "SwordFish" to connect to standard oscilloscope probes or BNC cables if required. Powered from USB, "SwordFish" needs no external power supply. "SwordFish" features a 10-bit ADC with a true sampling rate of up to 40M Samples /sec and sophisticated hardware triggering. The over-sampling feature of the EasyScope II software allows repetitive waveforms to be viewed at an effective resolution of up to 1nS (== 1G Samples / sec). "SwordFish" comes complete with EasyScope II (oscilloscope) and EasyLogger (data logging) software. The supplied Windows DLL's allows 3rd party applications to easily interface to SwordFish. Example code in several popular programming languages including LabView are provided. Windows CE and Linux drivers are also available on request.

Features

- 10 Bit ADC Resolution
- 1G S/s sampling rate (repetitive) 40M S/s native
- Maximum input voltage +/- 50V
- AC / DC Coupling
- Edge, min/max pulse width and delayed trigger modes
- Analog Bandwidth 5MHz
- Self Powered USB Interface (250mA)
- Precision spring loaded probe tip or BNC connection
- Hardware upgradeable over USB

EasyScope II Features

- Timebase - 50ns/div to 50ms/div in 19 steps
- Y-Scale 100mV/div to 10V/div
- On Screen X and Y measurement cursors
- FFT Spectrum analyser display
- XY Mode
- Meter Displays – Min / Max / Mean / True RMS voltage + Frequency
- Save results to CSV file

EasyLogger Features

- Sampling Rate – 20,000 samples / sec to 100 sec / sample
- Flexible Y axis scaling
- Export to CSV file
- Save to Binary File

What's In the Box ?

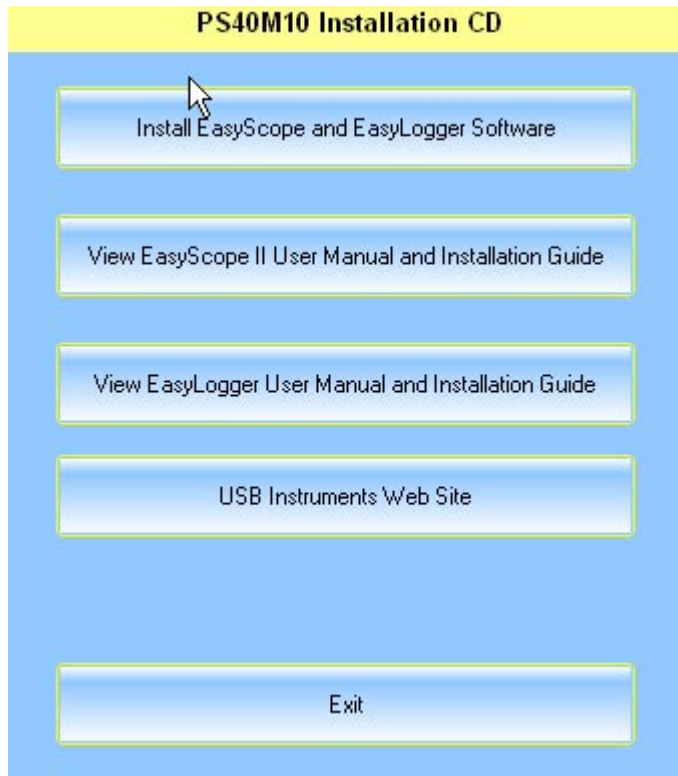
Please check that the box contains the following items :-

- 1 x PS40M10 Pen Oscilloscope
- Spring Loaded Probe (attached to PS40M10)
- EasyScope II and EasyLogger Software Installation CD
- Phono to BNC Adapter
- PS40M10 Instrument Pouch
- Getting Started Leaflet

Getting Started

To install the software and drivers please insert the Software Installation CD into the host PC CD-ROM drive **before** connecting the PS40M10 to a USB Port.

After a short delay, the following menu should appear.



We suggest at this point to click on one of the "View the Installation Manual" buttons. This brings up a comprehensive User Guide in electronic book format. Take a few minutes to review the installation guides section which details the procedure more thoroughly than this leaflet.

Click on "Install Easyscope and EasyLogger Software". There will be a delay of several seconds whilst the setup program loads, then follow the on-screen instructions to complete the installation of EasyScope II and Easylogger.

With the Software Installation CD still in the drive, plug the PS40M10 into a spare USB Port on the host PC. This should launch the Windows Found New Hardware wizard. Select the CD ROM drive as the source of the drivers and proceed through the driver installation process as outlined in the e-book User Guides.

Connecting a BNC Cable

To connect a standard BNC cable to your PS40M10, first remove the translucent cap (1) by pulling it away from the instrument. This will reveal a phono (RCA) socket (2) which can also be used directly if required. Inserting the adapter supplied (3) into the phono socket provides the required BNC socket to connect oscilloscope probes and other BNC leads.



Measuring High Voltages

The PS40M10 is rated at +/-50v even with a x10 oscilloscope lead attached. Measuring higher voltages than this directly may damage the instrument and invalidate the warranty. The instrument is not galvanically isolated - i.e. the ground of the internal circuitry connects directly to the ground of the host pc via the USB supply. To measure high voltages such as mains supplies use a high voltage differential probe such as the USB Instruments SI-9001 for your personal safety and to prevent damage to the instrument.

Troubleshooting

We anticipate you will receive many years of satisfactory service out of your purchase, however, should you experience any problems we will do our best to rectify them. Should you experience problems please check our web site for known issues and software updates. Should this fail, e-mail our support department at support@usb-instruments.com .

Warning

The spring loaded probe tip of the PS40M10 is extremely sharp. To prevent accidental injury, always cover the tip with the soft plastic protection guard (supplied) when the PS40M10 is not in use. Replacement caps / probe tips are available for purchase in the event of accidental breakage.

Contact Details

Web Site : <http://www.usb-instruments.com>

Sales Enquiries : E-Mail sales@usb-instruments.com

Support Enquiries : E-mail support@usb-instruments.com