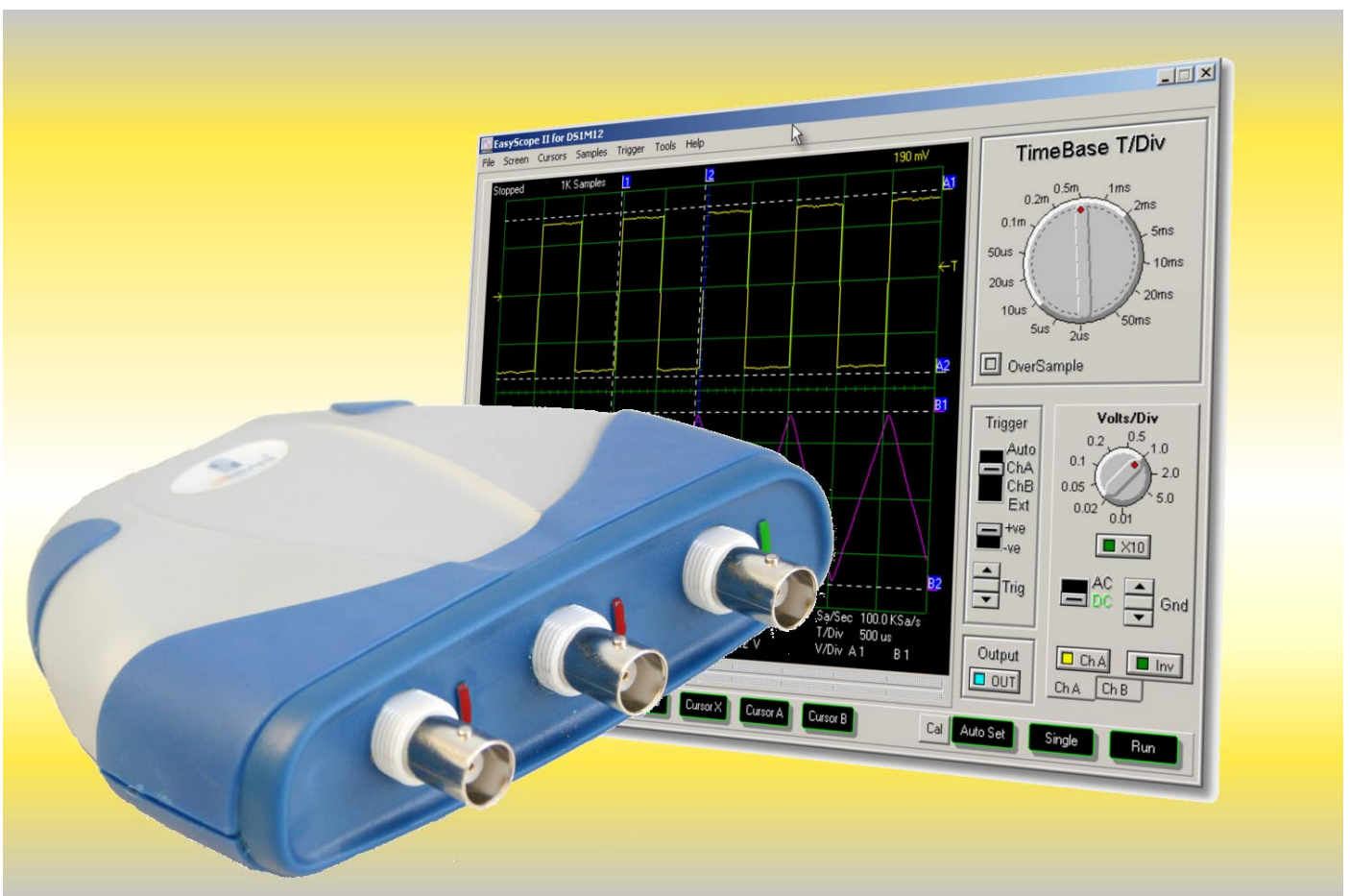




# DS1M12 "StingRay" Multi-Function Instrument

## Getting Started Guide



## DS1M12 "StingRay" USB Oscilloscope & Waveform Generator.

Powered from USB, Stingray needs no external power supply. Stingray combines the functions of Oscilloscope, Data Logger, Spectrum Analyser, Volt Meter, Frequency Meter and Waveform Generator in a single instrument. Stingray features simultaneous 12-bit sampling on both channels, a native sampling rate of 1MS/s ( 20MS/s for repetitive signals), sophisticated hardware triggering including delayed time base and pulse width. It also has a 3rd channel which can be a waveform generator output or an external trigger input. Stingray comes complete with EasyScope II ( oscilloscope ) and EasyLogger ( data logging ) software. The supplied Windows DLL's allows 3rd party applications to easily interface to Stingray. Example code in several popular programming languages including LabView are provided. Windows CE and Linux drivers are also available on request.

### Hardware Features

- 12 Bit ADC Resolution
- Simultaneous sampling on both channels.
- 32k Byte Waveform buffer
- 20M S/s sampling rate ( repetitive ) 1M S/s native
- Maximum input voltage 50V DC
- AC / DC Coupling
- Edge, min/max pulse width and delayed trigger modes
- Analog Bandwidth 250KHz
- Inbuilt 10-bit waveform generator with +/- 3.5v output range and 1k buffer.
- Hardware upgradeable over USB
- Self Powered USB Interface ( 250mA )
- Dimensions W: 116mm x H: 30mm x D: 100mm
- Weight : 160g excluding cable

### EasyScope II Features

- Timebase - 2us/div to 50ms/div in 14 steps
- Y-Scale 10mV/div to 5V/div
- On Screen X and Y measurement cursors
- FFT Spectrum analyser display
- Meter Displays – Min / Max / Mean / True RMS voltage + Frequency
- Save results to CSV file
- Save screen to BMP File
- Sine Wave, Square Wave, Triangle, Sawtooth and user defined waveform generation.

### EasyLogger Features

- Sampling Rate > 100,000 samples / sec to 100 sec / sample
- Flexible Y-axis scaling ( V / mV / User Defined )
- Flexible X-axis scaling ( sample number or time )
- Save to CSV , BMP, TXT or binary files
- Import from previously saved binary files
- Up to 3 on-screen cursors to track data
- Up to 4 pop-up or e-mail alerts
- Text memos for incorporating user notes in the data

## What's In the Box ?

Please check that the box contains the following items :-

- 1 x DS1M12 Oscilloscope & Waveform Generator
- EasyScope II and EasyLogger Software Installation CD
- DS1M12 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 DS1M12 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", "Install EasyLogger" or "Install DLLs" buttons as appropriate. 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 DS1M12 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.

## Measuring High Voltages

The DS1M12 is rated at +/- 50V DC maximum input ( 35V RMS AC ) 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 .

## Contact Details

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

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