DS1M12 - Quick Start Guide

Congratulations on your purchase of the Connective Peripherals DS1M12 Multi-Function Instrument. This guide contains the specifications and installation procedure for the DS1M12 drivers and application software.

The DS1M12 is a multi-function instrument, combining the functions of Oscilloscope, Data Logger, Spectrum Analyser, Volt Meter, Frequency Meter and Signal Generator in a single instrument.

It features simultaneous 12-bit sampling on both channels, a native sampling rate of 1MS/s (20MS/s for repetitive signals) and 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. Powered from USB, the DS1M12 Stingray needs no external power supply.

DS1M12 EasyScope II (oscilloscope) and EasyLogger (data logging) software for Windows can be downloaded royalty-free from the Connective Peripherals website http://www.connectiveperipherals.com.

Features

Hardware Features

- Combined Oscilloscope, Data Logger, Signal Generator, Spectrum Analyzer, Voltage and Frequency Meter functions
- 12 Bit ADC Resolution
- 12-Bit data streaming simultaneously on both channels
- 32k Byte Waveform buffer
- Sampling Rate

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  - Oscilloscope - 20M S/s (repetitive), 1M S/s native
  - DataLogger - up to 50k S/s
- Maximum input voltage ± 50V DC (35V RMS AC)
- 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
- Self Powered USB Interface (250mA)
- Instrument carrying bag included
- Attractive enclosure with rubberized mouldings
- Dimensions W: 116mm x H: 30mm x D: 100mm
- Weight: 160g (excluding cable)

EasyScope II Software Features

- Timebase – 2µs/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 on both channels
- Meter displays – Min, Max, Mean, True RMS Voltage and Frequency
- Save results to CSV file
- Save screen to BMP file
- Waveform Generation – Sine wave, Square wave, Triangle, Sawtooth and User Defined waveforms

EasyLogger Software Features

- Sampling Rate selectable from > 100,000 samples / sec to 100 sec/sample

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- 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 and Waveform Generator
- 1 x DS1M12 Instrument pouch
- 1 x USB cable
- This Quick Start Guide

Getting Started

The DS1M12 requires device drivers to be installed on your PC to enable communication with the instrument. Install the device drivers prior to installing the applications below.

Driver Installation

Driver installation can be completed in one of two ways:

1. The latest DS1M12 device drivers are available through the Microsoft Windows Update service. Simply plug in the DS1M12. When the Found New Hardware Wizard appears, allow it to find the drivers from the Windows

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Update service. Windows 7 defaults to automatically download the device drivers without prompts.

2. Download the latest device drivers available (at the time of writing the latest version was 2.08.14): https://www.connectiveperipherals.com/products/usb-instruments/usb-oscilloscope/ds1m12.html

   Extract the files to a convenient location on your local drive.

   Connect the supplied USB cable to the DS1M12 and the other end of the cable to a spare USB port on the PC. Power is supplied by the USB port, so no external power is required.

   The Windows "Found New Hardware Wizard" will appear. Select the choice to install the drivers from a specific location and then browse to the folder created in the previous step where you unzipped the files.

   The DS1M12 utilizes a 2-channel FTDI chip, so the wizard will re-appear a second time to install the drivers for both device channels. On completion of installation the device is ready for use.

Application Installation (Oscilloscope)

- The scope application file can be downloaded from:
  - https://www.connectiveperipherals.com/uploader/DS1M12_Setup.zip
  - Extract the files to a convenient location on your local drive.

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Document Reference Number: CP_000042
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- Run the executable DS1M12_Setup.exe by double clicking on the file and follow the on screen prompts to install the application.

Application Installation (DataLogger)

- The datalogger application file can be downloaded from: https://www.connectiveperipherals.com/uploader/DDL1M12_Setup.zip

- Extract the files to a convenient location on your local drive.

- Run the executable DDL1M12_Setup.exe by double clicking on the file and follow the on screen prompts to install the application.

The applications can then be accessed from the START>All Programs list of applications.

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. The ground of the internal circuitry connects directly to the ground of the host PC via the USB connection. To measure high voltages such as mains supplies, use a high voltage differential probe such as the Connective Peripherals SI-9001 for your personal safety and to prevent damage to the instrument.

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Document Reference Number: CP_000042
DS1M12_Quick_Start_Guide 1.1

Troubleshooting

If a static / ESD discharge occurs down the earth lead of the oscilloscope, the unit may lock up and require the host pc to be re-started to resume operation. In practice, this is an unusual condition and should not affect normal operation.

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 website for known issues and software updates. Should this fail, you can e-mail our support department using the contact details below.

Contact Details

Website: https://www.connectiveperipherals.com

E-Mail (Support): support@connectiveperipherals.com

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Document Reference Number: CP_000042
DS1M12_Quick_Start_Guide 1.1

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Revision Record Sheet

Authors	Graham Brown
Filename	**DS1M12_Quick_Start_Guide**

Revision	Date	Details
Rev 1.0	2011-06-07	First release – Document created by merging the old USB Instruments leaflet and the 2010 EasySYNC quickstart guide
	2011-06-07	Reviewed (Bob) – comments added, minor formatting updates, minor edits (<Alt> + 241 (on number pad) will give the ± symbol)
	2011-06-20	Graham B - Shortened document by removing picture from front page and re-formatting the paragraphs. Edited paragraph on first page to remove reference to DLLs and examples.
	2011-06-21	Graham B – Removed reference to Linux on first page.
	2011-06-21	G Lunn – comments added
Rev 1.0	2011-06-21	Ian Dunn – reviewed. Minor comments added
Rev 1.0	2011-06-22	Graham B – Removed 'hardware upgradeable over USB' from features. Added comment that FFT available on both channels in software features list.

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Document Reference Number: CP_000042
DS1M12_Quick_Start_Guide 1.1

Rev.1.1	2019-03-25	Re-branding to reflect the migration of the product from EasySync to Connective Peripherals name (changed logo, copyright, internal hyperlinks) Approved

Sign Off

Signatory	Signature	Date
Managing Director		
Sales and Marketing Manager		
Engineering Manager		

Clearance Approval

- This Document is cleared for Connective Peripherals use and unrestricted circulation.

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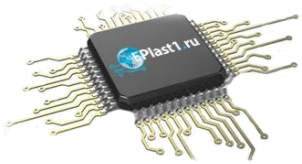
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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