

BlackBox

The low cost way to convert your PC or Laptop into a versatile datalogger

Datalogging has never been easier or more affordable

Features:

- **Connects to USB port**
- **Fast data transfer**
- **Realtime viewing on computer screen**
- **Easy to use**
- **Affordable**
- **Over 50 different sensors available**



The BlackBox utilizes the fast transfer speed of USB ports to enable your PC or Laptop to be used as a sophisticated datalogger. This allows you to take advantage of your computers large screen and high memory capacity. Ideal for laboratory based and/or in the field experiments.



No batteries or buttons
the BlackBox is controlled by your computer

3 Channel
Connect 3 sensors at one time

Plug & Play
automatic detection by software of BlackBox & sensors

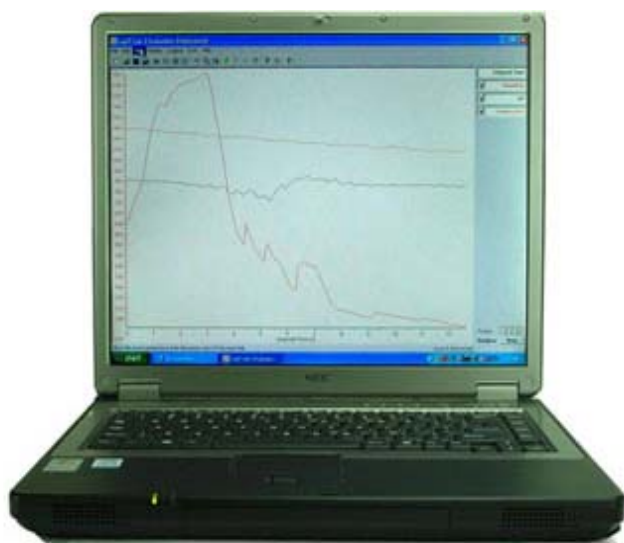
Oscilloscope mode
view fast events such as sound -waves, dynamics events, light & voltage level fluctuations, etc.

BlackBox set:

Sensors: i. **HiTemp** (temperature)
Experiment guide/Instruction manual

ii. **SMARTeye** (Light level, timing events, speed)
USB connection cable Carry case

Your PC or Laptop



Realtime sensor readings displayed on your computer screen.
Alternatively use the datalogging option to log at specific intervals

USB connection to your PC or Laptop



Sensors connected to BlackBox

How easy is the **BlackBox** to use?

- 1. Install the software in your computer & START the software**
- 2. Connect the BlackBox with sensors to your computer USB port (software automatically detects BlackBox & identifies sensors)**
- 3. START logging**

SENSORS

Automatic identification & automatic calibration

Temperature and Light sensing

D100089	HiTemp Temperature sensor Basic General purpose wire type (-10 to +110°C max) as in LogIT packs
D100047	ProTemp temperature sensor Robust stainless steel probe for chemistry, soil temp etc (-30 to +130°C)
D100098	ProTemp & moulded extension Robust temperature probe (-30 to +130°C) + moulded sensor extension cable
D100067	K-Type Thermocouple adapter For use with any standard K-type thermocouple -50 to +1200°C range
D100088	General Light Level sensor Basic light sensor as supplied in LogIT packs for general use
D100044	Light Level sensor with lens With lens system & coloured filter set for optics & general use
D100073	LUX sensor Wide range of 0-25000 LUX with eye response filter for ambient light studies
D100095	SPX LUX Sensor Designed for monitoring changes of outdoor natural light (0-100,000 LUX)
D100158	Ultraviolet light sensor UVA & UVB radiation - to show effectiveness of sunglasses, sunblock etc.

Voltage, Current, Movement and Timing

- D100079 Magnetic Field sensor Flexible probe for electro-field experiments +/- 90mT range
- D100045 Voltage Measurement set Range -25 to +25V dc complete with cable & set of probes & clips
- D100068 Current Measurement probe Range of -1 to +1A dc complete with cable and set of probes & clips
- D100081 100mV signal adapter Adapter containing amplifier for +/- 100mV range
- D100059 Movement & position sensor Angular low friction movement for pendulum, plant growth etc
- D100091 Ultrasonic Ranger sensor Ultrasonic position and speed of sound sensor for physics & maths
- D100042 Linear Accelerometer Solid state accelerometer which measures horizontal or vertical acceleration.
- D100156 Force Sensor Designed for multi purpose Physics dynamics investigations and demos
- D100054 Light Gate set Pair of Light gates for Time, acceleration & velocity experiments
- D100090 Single Light Gate One Light gate for Timing experiments
- D100094 Pressure mat set Set of 2 Pressure mats for timing races, exercise etc
- D100048 Light Switch sensor New design with integral light guide to make wide light gate etc
- D100055 Infra Red Source Focussed IR Light source for Light switch above
- D100052 Reflective Light Switch Suitable for optical tachometry or timing/counting close objects
- D100050 Start/Mark Switch Hand held button- use with extension cable to remotely mark events
- D100049 Push Switch Small push button - can be used to trigger and time events
- D100051 Magnetic Switch Supplied with small magnet to detect, count & time passing objects

Heart Monitoring

- D100057 Wireless Heart Receiver Works with POLAR Pulse transmitters for rate display (not LIVE compatible)
- D100092 Pulse Monitor Intelligent pulse monitor for rate & waveform - clips on stationary ear or finger

Electrochemistry, Air Pressure and Environmental Sensing

- D100060 Sound Level sensor Measures sound level calibrated 50-100dBA
- D100157 Sound Wave Sensor Display & records Sound Waveforms - for new LogIT DataVision CX only
- D100056 pH amplifier Compact pH amplifier with BNC socket for standard pH electrodes
- D100112 pH electrode High Quality pH electrode with BNC plug & cable for use with pH amplifiers
- D100113 Coax to BNC adapter To enable pH electrodes with coaxial plugs to work with pH adapter
- D100086 pH electrode & amplifier pack Complete set with pH electrode, cable and amplifier
- D100096 Adjustable pH Amplifier For pH work requiring high accuracy - calibrates most standard pH electrodes
- D100097 Adjust. pH Amp & Electrode Complete set with pH electrode, cable and adjustable amplifier
- D100135 Submersible DO2 probe set New design probe which needs no battery and easy setting up
- D100107 Spare membrane set With 3 membranes and KCl solution for Submersible DO2 set
- D100083 Conductivity probe set Liquid Conductivity set with probe and adapter
- D100082 ION/ORP Redox adapter For connecting standard Redox potential (ORP) electrodes to LogIT
- D100142 Ammonium electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100141 Bromide electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100143 Calcium electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100144 Chloride electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100145 Flouride electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100146 Nitrate electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100147 Sulphide electrode High quality solid state ion selective electrode for use with REDOX adapter
- D100150 Colorimeter Easy to use Colorimeter using three colour LED and powered from LogIT
- D100077 HumiPro Sensor Professional Humidity sensor for fast response and high accuracy
- D100069 Humidity Sensor Standard Humidity sensor for general indication of relative humidity
- D100040 Radioactivity Probe Radioactivity sensor to measure the intensity of alpha, beta & gamma sources
- D100080 Air Pressure Sensor For measuring absolute air pressure in general lab experiments
- D100041 Barometric Air Pressure Designed for barometric measurements - range 800-1100 Bar
- D100061 Weather Station adapter set For Davis Weather Stations: Temperature, Wind speed & direction
- D100110 Stream Flow sensor Sensor Flow in rivers & streams; includes 1metre wading rod (not LIVE compatible)

Connecting Balances and other equipment

- D100084 Balance adapter Connects most balances with RS232 output to LogIT sensor input
- D100058 Designer sensor set Analogue 0-2.5V and Digital adapters
- D100046 1 volt sensor adapter For connecting other 1 volt sensors (eg PH Blue box, Unilab etc)
- D100066 Instrument adapter To connect instruments and sensors with 0-2.5V dc output range
- D100076 4-20mA Current loop adapter For connecting Instruments with current loop outputs to LogIT

SENSOR CABLES AND ACCESSORIES

- D100131 Sensor extension lead 1 Professional 1 metre long with repairable metal cased connectors
- D100132 Sensor extension lead 2 Professional 3 metre long with repairable metal cased connectors
- D100133 Sensor extension lead 3 Economy 1 metre long with moulded connectors - non-repairable
- D100115 Sensor Mounting set Set of 6 sensor mounting clips with screws for fixing sensors

GENERAL ACCESSORIES

- D100074 CheckIT display module Clip on display for LogIT SL or LIVE to show sensor readings etc
- D100136 LogIT Multi-Charger set charger set Convenient way to charge up to 5 DataMeters using one power unit (included)
- D100375 LogIT DataVision Power Pack A High Power UK AC Mains Adapter/Charger for LogIT DataVision CX only
- D100038 LogIT SL Charge Pack Dual battery charger & 1 Rechargeable battery for LogIT SL/LIVE
- D100053 LogIT SL/LIVE Leather case High quality leather case to fit LogIT SL or LIVE with belt clip and velcro covers
- D100117 LogIT/LIVE carry case only Spare carry case as supplied with LogIT SL / LIVE packs - including foam
- D100118 DataMeter carrying case only Spare carry case as supplied with DataMeter packs -including foam
- D100119 FIVE SL/LIVE carry case Spare carry case for 5 LIVE's or LogIT SL and sensors - including foam
- D100370 DataVision/SensorLink carry case Spare carry case for DataVision/SensorLink and sensors - including foams

TEACHING RESOURCES AND SUPPORT MATERIALS

- D103020 eXperiment Resources only eXperiment! Resource CD Site license CD of eXperiment! multimedia resource (see front page)
- D105165 Explorer Interactive - SITE Junior Science experiment Multimedia Resource CD for Windows-Site license
- D100211 DataLogging Guide Ideas for Datalogging The basics of datalogging; includes Primary and Secondary investigations
- D100200 Teaching support file Comprehensive guide written by teachers and the LogIT designers
- D100203 IT in Secondary Science Book Compendium of IT ideas for Secondary Science by Roger Frost
- D100202 IT in Primary Science Book Compendium of IT ideas for Primary Science by Roger Frost
- D100204 DataLogging and Control Book Comprehensive resource on datalogging and control technology
- D100208 DataLogging in Practice book Comprehensive book to help incorporate DataLogging in education

AIRLINK WIRELESS CONNECTIVITY

LogIT Airlink wireless connectivity is suitable for LogIT SL, DataMeter 1000, DataVision CX/BX, & Serial Explorer

- D107010 AirLink 100 Adaptor LogIT Airlink 100 Adaptor Adds Bluetooth® Class 1 wireless connectivity to most LogITserial dataloggers
- D107015 AirLink Set LogIT AirLink Set LogIT Airlink 100 adaptor & Class 1 Computer Bluetooth® USB adaptor
- D107020 Computer Bluetooth® Adaptor Adds Bluetooth® Class 1 functionality to most USB equipped computers

CABLES TO LINK COMPUTERS TO ANY LOGIT (software on next page)

- D100120 license LogIT Serial to USB Link Cable Connects a serial LogIT datalogger to USB port:PC (Win98SE+) or Mac (OS9+) Compatible with LogIT Lab 32bit, Insight 3/4 or Junior Insight software 3/4
 - D100124 IBM PC/Acorn serial link cable For standard 9pin PC or Acorn serial COM socket (for 25 way see adapter)
 - D100128 PC cable to LogIT adapter Adapts palmtop PC cable for LogIT use (eg PsiWin, CE computer etc)
 - D100138 USB A-B cable replacement cable 2m USB replacement cable to link USB LogIT(eg Explorer)to USB PC/Mac
 - D100125 9-25 way adapter Adapter to use LogIT PC Link cable with 25 pin PC COM/serial sockets
 - D100126 Apple Serial Link cable For Apple Macintosh and eMate 300 computers with Modem/Printer ports
 - D100127 PB1-2/Psi3-3a Link cable For Pocket Book 1-2/Psion 3-3a also requires serial link(eg A-Link)
 - D100130 PB3/Psi3C Link cable For Pocket Book 3 or Psion 3c direct (no other serial lead/link reqd)
 - D100129 DBus extension cable To extend serial link cable or enable SwitchIT use with DataMeter
- Other link cables for older computers still available - ask for details

CONTROL PRODUCTS

- D100101 Control LED Can be programmed to light on and off (not LogIT SL compatible)
- D100102 Control Buzzer Can be programmed to sound on and off (not LogIT SL compatible)
- D100103 Control Relay For simple control lamps, motors etc up to 24V / 0.5A (not SL)
- D100062 SwitchIT 4 channel relay control interface - up to 1A/24V per channel
- D100064 AlarmIT For adding buzzer/alarm - LogIT SL only
- D100129 DBus extension cable To extend serial link cable or enable SwitchIT use with DataMeter

LogIT SOFTWARE

- D100510 LogIT Lab 3 Universal - Single LogIT Lab WIN 98SE+ compatible with all past & current LogIT's inc DV etc
- D100515 LogIT Lab 3 Universal - Site LogIT Lab WIN 98SE+ compatible with all past & current LogIT's inc DV etc
- D100512 LLab std to Universal upgrade Upgrades LogIT Lab 1/2 Standard Site License to Universal Site license
- D100499 Pocket PC starter - single user Pocket PC/Windows CE V2.0 serial palmtop - needs PC-LogIT adapter (single)
- D100500 Pocket PC starter - site license Pkt PC/Windows CE V2.0 serial palmtop - needs PC-LogIT adapter (site)

INSIGHT SOFTWARE compatible with LogIT dataloggers

- D100550 \$DL Insight 4 WIN (Single User) Datalogging Insight 4 CD+manuals for Windows-USB compatible
 - D100551 DL Insight 4 WIN - 5 User Datalogging Insight 4 upgrade license only - also requires single user pack
 - D100552 DL Insight 4 WIN - 10 User Datalogging Insight 4 upgrade license only - also requires single user pack
- Other upgrades on request

For further details and updates please contact **ISSCO**