optimus+
sound level meters

Optimus Yellow
Sound Level Meters
for Simple Noise Measurements

The Optimus Yellow instruments are a range of state-of-the-art sound level meters that have been designed to meet the very latest standards for noise measurement instruments and to provide the highest level of performance, whilst being simple to set up, use and operate.

Applications

- Simple noise level testing
- Noise ordinance enforcement
- Community noise assessments
- Fire and emergency alarm testing
- Machinery servicing and maintenance

There are many noise measurement applications where integrated noise levels, such as L_{eq} or L_{AVG}, are not required and where basic noise data such as sound level (SPL) or maximum sound level (L_{max}) are all that is needed. These applications include simple noise level testing, noise ordinance enforcement and the testing of fire and other emergency alarms.

The Optimus Yellow instruments are ideal for these applications and can be upgraded to add further functions, future-proofing your investment.

Simple operation to make measurements simple

Your instrument will measure every parameter simultaneously, so there is no possibility of you setting the wrong function. However, only the most important data is displayed on the screen.

A modern instrument with modern technology

A Bluetooth connection allows you to pair your sound level meter with your Android or iOS mobile device,

enabling you to control your instrument remotely. With this feature, you can also see a live feed of the data being recorded and download the overall measurement values.

Key features

- Simple operation
- Simultaneous measurement of all parameters
- High-resolution colour display
- Latest digital technology
- Ergonomically designed case
- Single measurement range
- Optional data logging with VoiceTag audio recording
- Bluetooth connectivity, compatible with Android and iOS devices

Data logging of measured data

The CR:152B and CR:151B instruments provide data logging of over 10,000 records as well as allowing VoiceTag audio information to be stored before each measurement. These recordings can be played back in the NoiseTools software packageto provide notes and documentation for each measurement.

A clear upgrade path to protect your investment

A sound level meter should be an investment and the Optimus range has been designed with the future in mind.

Your unit can be upgraded and enhanced as and when new regulations are introduced or when new functions are available.

Applicable standards[*1]
IEC 61672-1:2013 Class 1 or Class 2[*1]
IEC 61672-1:2002 Class 1 or Class 2 Group X[*1]
IEC 60651:2001 Type 1 I or Type 2 I
ANSI S1.4 -1983 (R2006)

Microphone
Class 1 Instruments MK:224 or MK:229 pre-polarized
Class 2 Instruments MK:216 pre-polarized

Microphone preamplifier
MV:200 Removable Preamplifier

Total measurement range:
20dB to 140dB RMS Single Range
Noise Floor: <18dB(A) Class 1, <21dB(A) Class 2

Frequency weightings
RMS: A, C, & Z Measured Simultaneously

Time weightings
Fast, Slow & Impulse Measured Simultaneously

Display
High resolution display with ambient light sensor and illuminated keypad

Memory
4GB Expandable with up to 10,000 measurements stored (B Version)

Time history data rates (global settings)
10ms, 62.5ms, 100ms, 125ms, 250ms, 1/2 sec, 1 sec, 2 sec (User selectable)

VoiceTag audio recording (B versions)
30 seconds of audio recording with each measurement

Bluetooth
BLE compatible with Anrdoid and iOS devices
Cirrus mobile applications available from Google Play and the App Store

Size
283mm x 65mm x 30mm

Weight
300gms/10oz

Batteries
4 x AA alkaline

Battery life
Typically 12 hours with Alkaline AA
Typically 20 hours with Lithium AA Non-Rechargeable

Battery life is dependent upon the battery type and quality & screen brightness

External power
5v via USB socket from PC or power supply
5v-15v via MultiIO socket

Tripod mount
1/4" Whitworth socket

Connections
USB Type B to PC
Multi-pin IO for external power
AC output via 3.5mm jack socket & ZL:826 cable
DC output via Multi-IO socket & ZL:825 cable

Case
Material: high impact ABS-PC with soft touch back and keypad

Environmental
Temperature   Operating -10°C to +50°C
                      Storage -20°C to +60°C
Humidity   Up to 95% RH non-condensing

Electromagnetic performance
IEC 61672-1:2002 & IEC 61672-2:2003
Except where modified by EN 61000-6-1:2007 & EN 61000-6-1:2007

Language options
English, French, German, Spanish as standard
Other language options may be available

Software support
NoiseTools download, configuration and analysis software supplied as standard.

NoiseTools is supplied free from any licensing or installation restrictions.

Measurement functions[*2]

CR:152A & CR:151A
Displayed functions
L_{XY}, L_{XYMax}, L_{XYMin}
Measurement run time

CR:152B & CR:151B
Displayed functions
L_{XY}, L_{XYMax}, L_{XYMin}
Measurement run time

Stored functions
L_{XYMax} & time history of L_{XYMax}

where x=A ,C ,Z; y= F, S, I

All values, figures and performance statements are typical and are subject to change without notice.

Notes
1. Please contact Cirrus Research plc for details of the standards and approvals that are available on specific instrument types.
2. For details of the displayed and stored parameters, please refer to the optimus user manual for full specifications.

All specifications, features and values are typical and are subject to change without notice.

Instrument Selection

Function	Class 1	Class 2	Sound Level Functions	Data Logging	VoiceTag Recording	Software Support	Measurement Kit	Bluetooth*
Instrument								✓
CR:152A+		Yes	Yes				CK:152A	✓
CR:151A+	Yes		Yes				CK:151A	✓
CR:152B+		Yes	Yes	Yes	Yes	Yes	CK:152B	✓
CR:151B+	Yes		Yes	Yes	Yes	Yes	CK:151B	✓

* Low-energy Bluetooth

Standard accessories
The Optimus sound level meters are supplied, as standard, with the following accessories:
User manual
Certificate of Calibration
USB data/power cable
Windshield
NoiseTools software DVD (requires B version of instrument to download measurements)

Measurement kits
The Optimus sound level meters are available as a complete measurement kit with the following accessories:
Optimus sound level meter
CR:514 Class 2 or CR:515 Class 1 acoustic calibrator
UA:237 90mm windshield
CK:300 carrying case
User manual and Certificates of Calibration
USB data/power cable and NoiseTools software DVD (requires B version of instrument to download measurements)

NO QUIBBLE GUARANTEE • ONLY FROM CIRRUS RESEARCH
15 YEAR WARRANTY

bsi.
ISO 9001 Quality Management
ISO 14001 Environmental Management
FM 531001   EMS 552104

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