

optimus

sound level meters

Sound Level Meters



Designed to meet the needs of modern noise measurements, the **optimus** sound level meters use the very latest technology matched with simple, intuitive operation to provide you with all of the data and information needed to make effective noise measurements.

Measure everything but keep it simple

Only the essential information you need is displayed on the high resolution colour OLED screen, keeping the essential data at your fingertips.

The **optimus yellow** instruments have been designed for simple noise applications.

All of the time and frequency weightings are measured simultaneously with the Lmax and Lmin values displayed along side the Sound Level.

An **optimus** instrument will measure, store and record every parameter at the same time so there is no possibility of you setting the wrong function.

Data logging of measurement data

The CR:152B and CR:151B instruments provide data logging of over 10,000 measurements as well as allowing for the recording of VoiceTag records.

VoiceTag recording of notes and comments

Before each measurement starts, you can record voice notes and comments using the instrument microphone and this information is downloaded to the PC along with the measurement data (B Versions).

These notes can be replayed using the NoiseTools software to allow you to make effective and concise measurement reports.

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.

The units can be upgraded and enhanced as and when new regulations are introduced or when new functions are available.

The NoiseTools software is licence free and updates are available, free of charge, from the Cirrus website.

Specifications



Applicable Standards

IEC 61672-1:2002 Class 1 or Class 2 Group X
IEC 60651:2001 Type 1 I or Type 2 I
ANSI S1.4 -1983 (R2006)

Microphone

Class 1 Instruments: MK:224 pre-polarized
Free-field 1/2" Condenser
Class 2 Instruments: MK:216 pre-polarized
Free-field 1/2" Condenser

Microphone Preamplifier

MV:200E 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
Peak: A, C, & Z Measured Simultaneously

Time Weightings

Fast, Slow & Impulse Measured Simultaneously

Display

High resolution OLED (Organic Light Emitting Diode) display with ambient light sensor & illuminated keypad
Display of Measured parameters, Recalled Measurement Parameters (B Versions) Battery Level & External Power Connection Overload & Under Range, Time & Frequency Weighting Elapsed Measurement Time, Instrument status

Display

High resolution OLED with ambient light sensor & illuminated keypad

Memory

2GB Expandable with up to 10,000 measurements stored (B Versions)

VoiceTag Audio Recording

User selectable recording of voice notes before each measurement for download to NoiseTools software (B Versions)

Memory

2GB Expandable with up to 10,000 measurements stored (B Versions)

Time History Data Rates (Global settings)

10ms, 62.5ms, 125ms, 250ms, 1/2 sec, 1 sec, 2 sec (User selectable)

VoiceTag Audio Recording

User selectable recording of voice notes before each measurement for download to NoiseTools software (B Versions)
30 seconds per recording with audio files downloaded with noise measurement information.

Size

283mm x 65mm x 30mm

Weight

300gms

Batteries

4 x AA Alkaline

Battery life

Typically 16 hours

External Power

5v via USB Socket from PC or Power Supply

Tripod Mount

1/4" Whitworth socket

Connections

USB Type B to PC, Multi-pin IO for external power

Case

Material: High Impact ABS-PC with soft touch back & 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 & Analysis software supplied as standard. Compatible with Microsoft Windows XP, Vista & 7 (32bit & 64bit)

Parameters Displayed & Stored

CR:152A & CR:151A

Displayed Functions

Sound Level View

Sound Level: LXy, X=A, C, Z; Y=F, S, I
Maximum Sound Level: LXyMax where x=A, C, Z; y=F, S, I
Minimum Sound Level: LXyMin where x=A, C, Z; y=F, S, I
Measurement Run Time
The instrument will display one set of Time Weighting values at a time, ie All Fast time weighted values

CR:152B & CR:151B

Displayed Functions

Sound Level View

Sound Level: LXy, X=A, C, Z; Y=F, S, I
Maximum Sound Level: LXyMax where x=A, C, Z; y=F, S, I
Minimum Sound Level: LXyMin where x=A, C, Z; y=F, S, I
Measurement Run Time
The instrument will display one set of Time Weighting values at a time, ie All Fast time weighted values

Stored Functions

Sound Level

Overall: LXyMax where X = A, C, Z; Y = F, S, I (9 items)
Time History: LXyMax where X = A, C, Z; Y = F, S (4 items)
Measurement Run Time
Time & Date of Measurement Start
Time History data rate is user configurable in the global settings

All values, figures and performance statements 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
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

Standard Accessories

The **optimus** sound level meters are supplied, as standard, with the following accessories:

User Manual
Certificate of Calibration
USB Data/Power Cable
NoiseTools Software CD (Requires B Version to download measurements)
UA:237 Windshield

Measurement Kits

The **optimus** sound level meters are available as a complete measurement kit with the following accessories:

CR:514 Class 2 or CR:515 Class 1 Acoustic Calibrator
UA:237 90mm Windshield
CK:250 Carrying Case



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ISO 9001:2008
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