

optimus

sound level meters

Sound Level Meters



NoiseMeters



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 provide the highest level of performance possible whilst being simple to set up, use and operate.

Applications

- Simple Noise Level Testing
- Noise Ordinance Enforcement
- Community Noise Assessment
- Fire & Emergency Alarm Testing
- Machinery Servicing & 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 testing of fire and 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

The instruments will measure every parameter simultaneously so there is no possibility of you setting the wrong function, but only the most important data is displayed on the screen. Where data logging is fitted, it stores this information for download to the NoiseTools software.

Key Features

- Simple operation
- Simultaneous measurement of all parameters
- High resolution colour OLED display
- Latest digital technology
- Ergonomically designed case
- 120 dB measurement range
- Optional Data Logging with VoiceTag

Data Logging of Measured Data

The CR152B and CR151B 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 to provide notes and documentation for each measurement.

A clear upgrade path

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.

Specifications



Applicable Standards

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

Microphone

Class 1 Instruments MK224 pre-polarized
Class 2 Instruments MK216 pre-polarized

Microphone Preamplifier

MV200E Removable Preamplifier

Total Measurement Range

20 dB to 140 dB 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 OLED display with ambient light sensor & illuminated keypad

Memory

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

Time History Data Rates (Global Settings)

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

Voice Tag Audio Recording (B Versions)

30 seconds of audio recording with each measurement

Size

283mm x 65mm x 30mm

Weight

300gms/10oz

Batteries

4 x AA Alkaline

Battery Life

Typically 16 hours

External Power

5V via USB Socket from PC or Power Supply
5V-15V via Multi-IO socket

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

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)

Measurement Functions

CR152A & CR151A

Displayed Functions
L_{XY}, L_{XYMax}, L_{XYmin}
Measurement Run Time

CR152B & CR151B

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.

Instrument Selection

Function	Class 1	Class 2	Sound Level Functions	Data Logging	VoiceTag Recording	Software Support	
Instrument							Measurement Kit
CR152A		Yes	Yes				CK152A
CR151A	Yes		Yes				CK151A
CR152B		Yes	Yes	Yes	Yes	Yes	CK152B
CR151B	Yes		Yes	Yes	Yes	Yes	CK151B

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 CD (Requires B Version 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
CR514 Class 2 or CR515 Class 1 Acoustic Calibrator
UA237 90mm Windshield
CK280 Carrying Case
User Manual & Certificates of Calibration
USB Data/Power Cable & NoiseTools Software CD (Requires B version to download measurements)

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