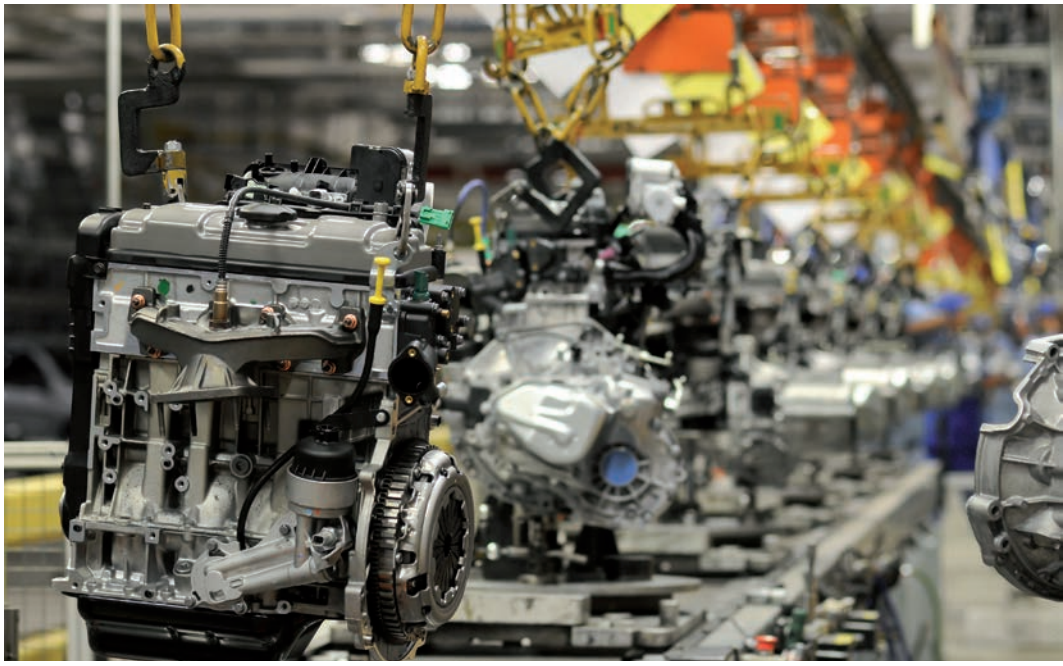
Cirrus optimus® sound level meters

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 provide the highest level of performance possible whilst being simple to setup, 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 to make measurements simple

The instruments will measure every parameter simultaneously so there is no possibility of you setting the wrong function, butt only the most important data is displayed on the screen. Where data logging is fitted, store 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
- 120dB Measurement range
- Optional Data Logging with VoiceTag audio recording

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 to 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.

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

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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
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 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)

VoiceTag 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 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 & 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)

NoiseTools is supplied free from any licensing or installation restrictions.

Measurement Functions

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. 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
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
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
CR:514 Class 2 or CR:515 Class 1 Acoustic Calibrator
UA:237 90mm Windshield
CK:280 Carrying Case
User Manual & Certificates of Calibration
USB Data/Power Cable & NoiseTools Software CD (Requires B Version to download measurements)

Cirrus Research plc
dedicated to noise measurement

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BGI

ISO 14001:2004
EMS 552104

ISO 9001:2008
FM 531001

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