

 **Cirrus**
optimus[®]
sound level meters



Sound level meters for workplace & environmental noise measurements



Meet the optimus sound level meters

The optimus family is a range of modern, high performance sound level meters that have been designed to give you the essential information you need to meet modern noise regulations, standards and guidelines.

Each member of the optimus family uses the same advanced technology including a high resolution colour OLED screen, a wide 120dB measurement span with no range changing and the simultaneous measurement of all parameters.

This means that you don't need to worry about selecting the wrong parameter or setting. Just switch on, calibrate and press Start. It's that simple.

If your instrument has data logging, all of the noise data is automatically stored in the 4GB memory ready for download to the NoiseTools software. You can also use the VoiceTag feature to record notes before you make a measurement by simply talking into the microphone.

All of the optimus instruments meet the strict requirements of the latest sound level meter standards including BS EN 61672-1:2003 which is recommended by the Noise at Work Regulations as well as many Environmental noise standards.

You can also be confident that the optimus sound level meters do what we say they do.

We've had the optimus instruments tested by a number of different independent test laboratories across Europe and they've approved the instruments and granted them Type Approval. Although this approval is not a requirement in the UK, it's just one more thing that makes the Cirrus optimus sound level meters the best option for your noise measurements.

Common features

- Ergonomic design with simple operation
- Simultaneous measurement of all available parameters
- Simple operation ensures that you get the functions you need quickly & easily
- Expandable & upgradable to protect your investment
- High resolution colour OLED display and backlit keypad for night-time measurements
- 120dB measurement range in a single span
- Simultaneous A, C & Z Frequency Weightings
- Simultaneous F, S & I Time Weightings
- Licence free NoiseTools software with free updates & no installation restrictions*
- VoiceTag™ audio note recording*
- AuditStore™ measurement verification*
- Acoustic Fingerprint™ triggering & audio recording*
- Pause & Back Erase functions
- 4GB memory expandable up to 32GB*
- Type Approval from the PTB, LNE & Applus+
- Designed, manufactured and supported in the UK

*Some features available on specific instruments only





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Which optimus is for you?

If you just need to meet the Noise at Work Regulations, the **optimus red** instruments are ideal.

If you need to make some environmental noise measurements, the **optimus green** is for you.

You can also use the **optimus green** instruments for Noise at Work measurements so this would be the ideal choice if you need to do both.

In the next few pages, we'll cover both the **optimus red** and the **optimus green** and recommend a few instruments that are ideal for making noise measurements to the regulations, standards and guidelines that you'll see in the UK.

If you'd like more detailed specifications, let us know and we'll send you all of the technical information.



The optimus red

Designed for the Noise at Work Regulations

When you're working to the Noise at Work Regulations, the **optimus red** gives you the information that you need, quickly and easily.

You'll get the L_{Aeq} and L_{CPeak} values measured at the same time which allow the $L_{EP,d}$ and the Peak Action Levels to be determined.

The $L_{Ceq} - L_{Aeq}$ (C-A) value is also measured which can be used to select PPE using the HML method.

The C and D version instruments also feature real-time 1:1 octave band filters which are measured at the same time as the other functions.

This information can be downloaded to the NoiseTools software and used to choose appropriate PPE from a database of products.

Before you make a measurement, you can use the VoiceTag function to store notes by simply speaking into the microphone.

These recordings can be played back in the NoiseTools software.

Recommended instruments

For the Noise at Work Regulations, we'd recommend the **CK:162C optimus red** sound level meter kit.

This is the complete instrument for Noise at Work measurements and meets all the requirements of the regulations and gives you all of the measurement functions you need.

If you don't need the 1:1 octave band filters, choose the CR:162B. If you don't need data logging, choose the CR:162A.

Don't forget that your instrument can be upgraded at any time so you can always add more features at a later date.

We would always recommend a complete measurement kit which includes the sound level meter, an acoustic calibrator, windshield and a secure, robust carrying case.



Applications

- Noise measurements to the 2005 Control of Noise at Work Regulations
- Selection of hearing protection using the Octave Band Method and the NoiseTools database.
- Hearing Protector Selection using the HML method with C-A
- Machinery Noise Tests
- Noise Ordinance & Community Noise Assessments
- General Noise Measurements

Features

- Simple operation with an ergonomic design
- Simultaneous measurement of all Noise at Work parameters
- VoiceTag™ note recording*
- AuditStore™ measurement verification*
- Latest digital technology with a high resolution colour OLED display and back-lit keypad
- Measure up to 140dB(A) and 143dB(C) Peak with a single measurement range
- Real-time 1:1 Octave Band Filters*
- NR & NC values & curves on screen*
- Pause & Back Erase as standard
- Standard 4GB memory

*Some features available on specific instruments only

Applications

- Environmental noise impact assessments over short or long periods
- Noise measurements to the 2005 Control of Noise at Work Regulations
- Ideal for boundary noise measurements, BS4142, ISO 1996 & Section 61 notices
- Hearing Protector Selection using HML or 1:1 Octave Band Methods
- Tonal analysis using 1:3 Octave Band Filters
- Detailed analysis using Audio Recording
- General Noise Measurements

Features

- Simple operation with an ergonomic design
- Simultaneous measurement of all parameters
- VoiceTag™ & AuditStore™ technology*
- Latest digital technology with a high resolution colour OLED display and back-lit keypad
- Measure up to 140dB(A) and 143dB(C) Peak with a single measurement range
- Real-time 1:1 & 1:3 Octave Band Filters*
- Up to 28 statistical Ln % values*
- Pause & Back Erase as standard
- Compatible with CK:670 & CK:680 outdoor noise measurement kits
- Standard 4GB memory

*Some features available on specific instruments only



The optimus **green** for Environmental & Occupational Noise

If you need to make outdoor noise measurements you'll need a different set of parameters than those for the Noise at Work Regulations.

If you have boundary noise limits to meet or if you are working to legal controls, such as a Section 61 notice, you'll need to get the L_{Aeq} , L_{AFmax} and L_{A90} values. You may also need to get 1:3 octave band data.

An **optimus green** can give you all of these as well as the values needed to meet the Noise at Work Regulations that you get from an **optimus red** instrument.

All of the **optimus green** instruments can record the actual sound during measurements and you can download and listen to these audio recordings in the NoiseTools software.

If you need an all purpose instrument to carry out both environmental and occupational noise measurements, choose the **optimus green**.

Recommended instruments

For making both Environmental & Noise at Work measurements, we'd recommend the **CK:171B optimus green** sound level meter kit.

This is a complete Class 1 sound level meter for both environmental & Noise at Work measurements.

It will meet all of the requirements of the regulations you'll need to meet, and gives you all of the measurement functions you need.

There are other versions of the **optimus green** so if you need a more detailed recommendation, speak to one of our sales team.

Don't forget that your instrument can be upgraded at any time so you can always add more features at a later date.

We would always recommend a complete measurement kit which includes the sound level meter, an acoustic calibrator, windshield and a secure, robust carrying case.

Cirrus noisetools software

- Download measurements from an optimus sound level meter
- Configure your optimus instrument
- Store and organise measurement data
- Quickly review measurements with the summary screen overview

- Produce measurement reports for any available data with print and export functions for Microsoft Excel and Word
- Tag measurements to people, places or projects
- Select PPE using the built-in database
- Share data between different PC's & locations
- Backup and archive noise measurement data
- Licence free installation with no keys, dongles or restrictions

The NoiseTools software

The NoiseTools software package gives you a quick and simple way to download, analyse and report the noise measurement information recorded by an optimus sound level meter.

For many users, the most time consuming part of a noise survey is the reporting and analysis of the results, and so having a simple way to view, analyse and print the information is essential.

NoiseTools gives you a range of tools to report and analyse your noise data quickly and easily.

The initial summary screen shows you the most commonly used information and, through simple icons, gives you access to the detailed measurement data.

You can simply print the summary screen to get a quick measurement report.

For advanced users, each and every function measured by the instrument is available for review and analysis and the data can be exported for further use.

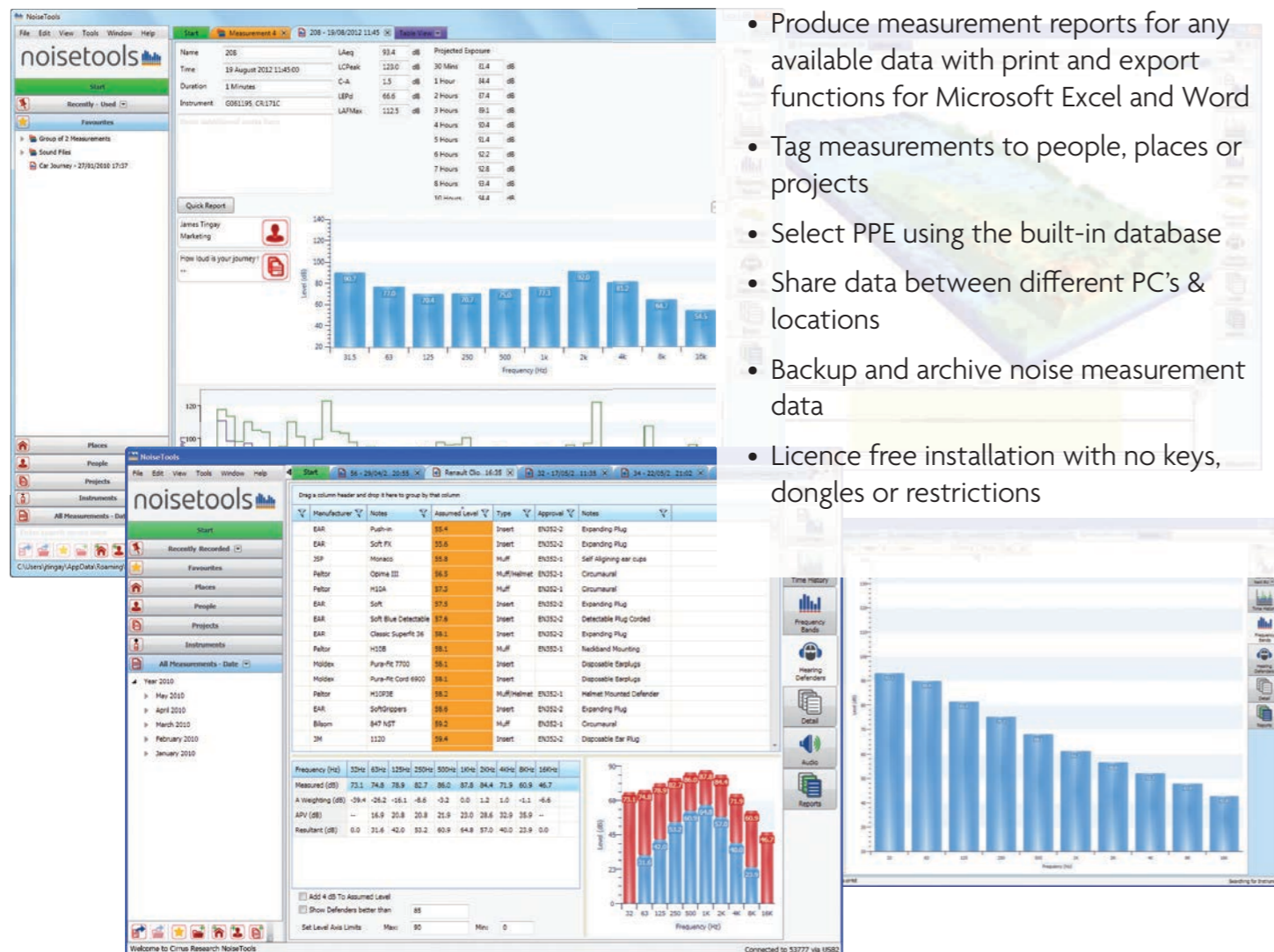
To help you keep your noise measurement data organised and easy to find, NoiseTools allows each measurement to be tagged to people, places and projects.

Measurements can be sorted, collated and grouped to make it simple to find any measurement quickly.

Best of all, NoiseTools is supplied free from any installation or licencing restrictions.

There are no dongles, keys or special codes needed and you can install the software onto as many laptops, desktops or servers as you need at **no extra cost**.

Updates can be downloaded **free of charge** from within the NoiseTools software or from the Cirrus website.



BANKS Group development with care

What our customers say...

“ The reliability and accuracy that the optimus green provides us with is essential to ensure our noise impact assessments are correct.

Additionally, the NoiseTools software, that comes free with the optimus green, allows us the means of downloading the data quickly and easily.

The sheer amount of data that we collect can then be managed and broken into categories and projects making analysis much simpler. ”

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What our customers say..



“ The optimus red is perfect for our needs, it is simple to use and is a great time saving device.

For our Health and Safety Managers, monitoring noise is just one element of their job; however they need to be able to measure the sound and advise correctly, the Optimus Red allows them to do just that.

It allows the simultaneous collation of numerous noise data that can be downloaded via Cirrus Research's NoiseTools software. ”

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The Cirrus **dB**Advantage

For over 40 years Cirrus has been designing and manufacturing noise measurement equipment.

Our products cover a wide range of applications including occupational noise, environmental noise, noise nuisance, airport noise monitoring as well as OEM products.

Our noise measurement products are designed, manufactured and supported from our office in North Yorkshire so when you buy from Cirrus, you can be safe in the knowledge that you can talk to the experts who know your equipment best.

We also offer a range of calibration, support and training services to keep your equipment in the best condition for years to come and to keep you up-to-date with best practices in noise measurement.

To show how confident we are in our products, we offer a 15 year warranty which even covers accidental damage to the instrument.

Cirrus Research is a Key Sponsor of the Institute of Acoustics and is a member of the British Safety Industry Federation's Registered Safety Supplier Scheme.



Confidence through Compliance





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