Castle GROUP

Who Are Castle?

Castle Group Ltd is a multi faceted company specialising in equipment and knowledge within the health, safety and environmental sectors.
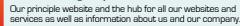
At Castle we are all about tackling issues in a way most appropriate to you. If you want to purchase or rent some equipment and learn to manage a job yourself, then great; if, however, you just want us to come and do it all for you – equally great and there's any measure in-between.

- Instruments
- Rental
- Software
- Training
- Calibration
- Consultancy
- Online knowledge

Our websites...

www.castlegroup.co.uk
Our principle website and the hub for all our websites and services as well as information about us and our company.

www.castleshop.co.uk
Our full range of measurement and monitoring equipment for industry. Available to buy online now.

www.castleinstruments.com
Castle Core Products for Vibration, Noise, Gas Detection, Air Sampling, Lone Worker Devices and more.

www.castletrainingacademy.com
A whole variety of Industry Specific Training Courses. 5 Star Training Venues, On-Your-Site Delivery, E-Learning.

www.castlerent.co.uk
The best Measurement & Monitoring Equipment at a fraction of the cost price. Available Immediately.

www.castle-consultancy.com
Employ our World Class Expertise in a Full Spectrum of Technically Challenging Subjects and Industries.

www.castlecalibration.com
Quick Turn-around Professional Calibration & Repairs by Highly Trained Engineers. Free Quotations

dBAir Technical Information

dBAir Models
dBAir Safety Class 1 (GA141S)
dBAir Safety Class 2 (GA241S)
dBAir Safety Octave (1/1) Class 1 (GA141SO)
dBAir Safety Octave (1/1) Class 2 (GA241SO)
dBAir Environment Class 1 (GA141E)
dBAir Environment Octave (1/3)Class 1 (GA141EO)
dBAir Safety & Environment Class 1 (GA141SE)
dBAir Safety & Env. Octave (1/1,1/3) Class 1(GA141SEO)

dBAir Systems
dBAir Safety Managers System
dBAir Safety Managers Octave System
dBAir Environment Assessment System
dBAir Environment Assessment Octave System
dBAir Safety & Environment Assessment System
dBAir Safety & Env. Assessment Octave System

Applicable Standards
IEC 61672-1:2013
IEC 61260-1:2014 (Where Octave Bands Fitted)
IEC 61252:1993 amendment 1:2000 (Where Exposure Fitted)

Microphone
Class 1:
½" Pre-Polarised - Free Field (IEC) Pressure (ANSI)
Sensitivity (50mV/Pa) -26 dB ± 2 dB re 1V/Pa
Class 2:
½" Pre-Polarised - Free Field (IEC) Pressure (ANSI)
Sensitivity (25mV/Pa) –32 dB ± 2 dB re 1V/Pa

Measurement Ranges
Linear Operating Range: 95dB

Noise Floor
Typical 'A' Weighting <18 dB(A) rms
'C' Weighting <30 dB(C) rms
'Z' Weighting <30 dB(Z) rms

Frequency Weightings
Measurement 1: A, C or Z   Measurement 2: A, C or Z

Frequency Range
1 Hz - 20 kHz (electrical characteristics)
Class 1: 12.5 Hz - 20 kHz (including microphone)
Class 2: 16Hz - 16kHz (including microphone)

Time Weighting
Measurement 1: Slow, Fast, Impulse
Measurement 2: Slow, Fast, Impulse

Octave Band Analysis
Where fitted 1/1 or 1/3 octave band analysis on measurement 1 only.

Display
2.4" Full Colour TFT 240x320 pixels

Dual Measurements
Simultaneous dual measurement with independent time and frequency weightings.

MEASUREMENT PARAMETERS

dBAir Safety:
LSPL, LEQ, LMAX, LMIN, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator

dBAir Safety Octave:
LSPL, LEQ, LMAX, LMIN, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator
1/1 or 1/3 Octaves:
LSPL, LEQ, LMAX, LMAX, Peak

dBAir Environmental:
LSPL, LE, LEQ, LMAX, LMIN, Peak, Ltm3, Ltm5, Lday, Lnight, Ldn, Lden, NA, 10 user-definable Ln values (pre-set to: L1, L2, L5, L10, L50, L90, L95, L98, L99) plus LAF* for Noise act assessment.

dBAir Environmental Octave:
LSPL, LE, LEQ, LMAX, LMIN, Peak, Ltm3, Ltm5, Lday, Lnight, Ldn, Lden, NA, 10 user-definable Ln values (pre-set to: L1, L2, L5, L10, L50, L90, L95, L98, L99) plus LAF* for Noise act assessment. 1/1 or 1/3 Octaves: LSPL, LE, LEQ, LMAX, LMAX, Ln's, Peak

dBAir Safety & Environmental:
LSPL, LE, LEQ, LMAX, LMIN, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator, Ltm3, Ltm5, Lday, Lnight, Ldn, Lden, NA, 10 user-definable Ln values (pre-set to: L1, L2, L5, L10, L50, L90, L95, L98, L99) plus LAF* for Noise act assessment.

dBAir Safety & Environmental Octave:
LSPL, LE, LEQ, LMAX, LMIN, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator, Ltm3, Ltm5, Lday, Lnight, Ldn, Lden, NA, 10 user-definable Ln values (pre-set to: L1, L2, L5, L10, L50, L90, L95, L98, L99) plus LAF* for Noise act assessment. 1/1 or 1/3 Octaves: LSPL, LE, LEQ, LMAX, LMAX, Ln's, Peak

Languages
English UK, English US, Chinese, French, German, Italian, Portuguese Brazilian, Russian, Spanish

Time History
Short Interval: 10ms to 60m
Long Interval: 1s to 24h
Smart Timer, Duration Timer or Interval Timer

Memory
16GB, 32GB, 64GB

Input / Output Connection
Micro USB Type B

Power
Batteries: 4 x AA (1.5V)
Life: Up to 8 Hours continuous operation (screen settings dependent)
USB Socket

Size and Weight
Dimensions:
Including Pre-Amplifier:
210mm (H) x 70mm (W) x 30mm (D)
Excluding Pre-Amplifier:
145mm (H) x 70mm (W) x 30mm (D)
Weight:
Model - 305g   System - 1500g

Available Accessories
GA607 Dual Level Calibrator
KA017 Kit Case for dBAir & Accessories (included)
KA022 Weatherproof Enclosure
ZL141-S01 Standard Microphone Extension Cable
ZL1108-01 USB to Micro USB Cable 1m
PSU6 USB Wall Plug

find out more **www.dbairsoundmeter.com**

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Tel: **01723 584250**
email: **sales@castlegroup.co.uk**

Your Local Distributor

Castle GROUP

NEW
the dBAir Sound Level Meter
WITH WiFi

the new benchmark
in sound measurement

WIRELESS CONNECTIVITY ■ CLOUD SOFTWARE

- DESIGNED FROM THE GROUND UP
- A UNIQUE CASTLE INNOVATION
- DESIGNED BY INDUSTRY EXPERTS
- WIRELESS OPERATION!

dBAir

1/3 Octave
LAF SPL 82.3 dB OL

www.castlegroup.co.uk

dBAir

dBAir
there's a **revolution** in the air

The Castle Cloud
MEASURE ASSESS SHARE

The New Castle Sound Meter With Cloud Technology

dBAir is the latest innovation from Castle Group bringing the power of wireless technology to sound measurement.

Quite simply, you take your measurement using one button on the instrument, then you go back to your office and by the time you get there, your results will already be at your fingertips. Alternatively, plug the meter in and simply copy a csv file to your computer.

- **No Wires, No Software, No Waiting**
- **Audio Recording**
- **Instant Hearing Protection Selection**
- **Octave and 1/3 Octave Capability**
- **Instant CSV file from dBAir**
- **Multi Language**

dBAir systems have all the accessories you need for the job.

Protect your investment

- ATTACHÉ KIT CASE
- WEATHERPROOF CASE
- IMPACT RESISTANT RUBBER CASE

find out more
www.dbairsoundmeter.com

Secure, instant & globally available data

dBAir works hand in hand with TheCastleCloud.com ensuring your data is always available and secure

- **Starter Account Completely FREE**
- **Powerful Database System**
- **Numerous 'Calculators'**
- **Customised Reporting**
- **PRO accounts available for increased storage & features.**

The database system on which the castle cloud is based allows you to analyse and interpret data based on which employees it affects, where it was taken, which tasks were assessed and who assessed them.

Once you have completed your assessment, you can copy and paste the data straight out or you can create reports, which can be automatically emailed to your distribution list.

FREE TO JOIN!

CASTLE CLOUD FEATURES

ANY DEVICE, ANYWHERE.
PC, Mac, Tablet or phone, you can access your account and data from any device, anywhere in the world!

CABLES? NOT HERE
At the push of a button the dBAir wirelessly, quickly and securely sends all of your data to your account in The Castle Cloud.

SECURE BACKUP
Not only do we regularly back-up all your data onto secure servers, you can also download your own data at any time onto your device.

INSTANT DATA - NO SOFTWARE NEEDED
As soon as you log into your Castle Cloud account, your data will be waiting for you primed for analysis and report creating. Alternatively, use a USB cable to copy a csv file straight off the meter!

EASILY MANAGEABLE
Set Administration Levels for different staff, ensuring the safety of your data whilst ensuring you get the most out of your results.

WHY CLOUD?
Cloud software isn't just the future, it's the present! If you use Apple, Dropbox, Microsoft or Google then you're already on the cloud and benefiting from the power and flexibility that brings.

All dBAir Systems come with a 1 year PRO account completely FREE!

www.thecastlecloud.com
Call us on: +44 (0)1723 584250

Castle GROUP

Castle
GROUP

dBAir systems for
SAFETY
in INDUSTRY

dBAir Works Anywhere In Any Weather

dBAir systems for
ENVIRONMENT

For Noise at Work assessments look no further than the dBAir Safety – Sound Innovation in Noise at Work Compliance from a company with nearly half a century's experience in dealing with occupational noise

Let the dBAir do the work, you do the safety.

Specifically designed to help you with assessments to BS 4142, site noise survey reports, local authority complaint measurements and much more, these dBAir Environment Assessment Systems are the result of nearly 50 years of knowledge and experience with noise in the environment.

dBAir
Model Name
1/254
09:01:35

	APL dB
3M Solar	
Peltor H31A	33.2
Hellberg H8	33.4
MSA XLS	43.2
Sensear SM Series	44.5
Silentex Multi Cap	46.6
Alpine Worksafe	57.7
Cigweld Light Duty	57.9
Elacin Universal	58.3
	58.7

Home

HANDHELD ENVIRONMENTAL dBAir SYSTEMS

The dBAir Environment is available as a handheld system, perfect for a wide range of noise checking, including Boundary Noise and BS 4142.

WHY CLASS 1 OR CLASS 2?
Noise at Work assessments only require a sound meter to be Class 2 as a minimum, however the price difference between this and Class 1 is now smaller than it's ever been.

A Class 1 sound meter carries more weight in a court of law, and could be the difference between successful defence of a civil claim, or not!

OUTDOOR dBAir SYSTEMS
For extended periods outdoors, Long Term dBAir Systems come housed in an extremely rugged and weatherproof case, self powered for over a week on the standard battery. For even longer noise monitoring add Castle's 40 Day Weatherproof Power Source.

1/1 OCTAVE BAND ANALYSIS
Although Hearing Protection Assessments can be carried out using SNR and HML, the addition of 1/1 Octave Band Analysis provides the user with the most accurate method possible ensuring staff are properly protected.

1/3 OCTAVE BAND ANALYSIS
Adding Octave Bands enables your dBAir System to carry out Tonal Noise Assessments to 1/3 Octaves.

APPLICATIONS
- Noise at Work Assessments
- Exposure Assessments
- Factory Noise Mapping
- Octave Band Hearing Protection Assessments
- Noise Control Effectiveness
- SNR & HML Hearing Protection Assessments
- Litigation Defence

APPLICATIONS
- Tonal Noise Assessments to 1/3 Octave
- BS 4142 Assessments
- Construction Noise
- Boundary Noise Monitoring
- Compliance Testing
- Handheld Environmental Measurements
- Short Term Assessments
- Long Term Assessments

find out more
www.dbairsoundmeter.com

See a full list of Environmental Systems at
www.dbairsoundmeter.com

Castle's Unique Hearing Protection Database

dBAir works with our own database to choose the correct hearing protecion from over 500 models.

- dBAir selects suitable protection
- Over 500 models to choose from
- On-screen assessment
- SNR, HML or Octave Band methods
- Exclusive to Castle

Castle
GROUP

dBAir systems for
SAFETY & ENVIRONMENT

dBAir systems for
YOUR APPLICATION

dBAir is multi-purpose for demanding jobs

For compliant measurements to IEC 61672-1:2013, for accurate Noise at Work assessments, and a whole host of Environmental Assessments including BS 4142:2014, Boundary Noise, Railway Noise, Construction Noise etc., these multipurpose dBAir Safety and Environment systems are an extremely popular choice with Safety Professionals and Environmental Health Officers alike.

OUTDOOR dBAir SYSTEMS WITH A TRIPOD

Coming housed in rugged Weatherproof Casing, an additional battery, Weatherproof Microphone Housing and a Heavy Duty Tripod, the dBAir Safety and Environment Systems combine all of the features to cover both applications. Perfect for unattended environmental measurements outdoor, then lift out the meter for hand-held measurement tasks."

HANDHELD dBAir SYSTEMS

Presented safely in their unique attaché carry case with an Acoustic Calibrator and TheCastleCloud.com software licence, all of the dBAir Systems are ready to use out of the box. Ideal for attended measurements both indoor or out.

APPLICATIONS

- ■ Noise Control Effectiveness
- ■ BS 4142 Assessments
- ■ Tonal Noise Assessments to 1/3 Octave
- ■ Construction Noise
- ■ Compliance Testing
- ■ Attended & Unattended Boundary Noise Monitoring
- ■ Handheld Environmental Measurements

The versatile design means dBAir works for multiple applications

For specific applications such as Construction Assessments, Boundary Noise Measurements & for configurable products for Consultants, these dBAir Systems have been created to match the task precisely

Construction Assessment System
dBAir Safety & Environmental System 1/1 & 1/3 Octaves – Class 1

Construction noise is a special application because it covers a range of tasks from Planning Conditions to BS 5228 Assessments and from Complaints and Occupational Noise Measurements.

That is why we have a dBAir system dedicated to the job

Railway Assessment System
dBAir Safety & Environmental System 1/1 & 1/3 Octaves – Class 1

With the ever increasing development of land near to railway lines, noise complaints are becoming ever more prevalent and it is local authorities and consultants who are being asked to carry out more assessments for this application.

This dBAir system also suits other environmental noise monitoring applications, especially where mechanical noise is the cause of complaints in residential areas

BS 4142:2014 Assessment System
dBAir Environmental System – Class 1

The new version of BS 4142, published in 2014 has a number of specific requirements for a sound level meter including statistical parameters, the ability to measure overnight if required and weather monitoring. dBAir has the functionality to handle BS 4142 assessments & the optional weather monitoring station will provide the required parameters to ensure compliant reports.

Boundary Assessment System
dBAir Environmental System – Class 1

Whilst some site boundary monitoring is required to be permanent, there are raft of situations that require boundary noise assessments for shorter periods of time. dBAir is ideally suited to being left unattended for a few weeks at a time, with minimal maintenance required and ultimately simple data acquisition. dBAir will has you covered for monitoring a construction site, nuclear power station, or factory boundary.

Consultants Assessment System
dBAir Safety & Environmental System 1/1 & 1/3 Octaves – Class 1 (WITHOUT TRIPOD)

Acoustic Consultants need sound monitoring equipment that is flexible, powerful and always ready. The IT-footprint-free dBAir generates its own csv files directly on-board so there is no need for complex software. If you do need analysis, the Castle Cloud software platform can deliver that from wherever you are in the world. This dBAir consultant system can be configured to be exactly what you need it to be right now, and then you can re-configure it later if you need it to do more!

find out more
www.dbairsoundmeter.com

Call us on:
+44 (0)1723 584250

All Systems come with a 1 year PRO account for
TheCastleCloud.com