

## dBair systems for SAFETY & ENVIRONMENT



### **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 & Environment Octave (1/1,1/3) Class 1 (GA141SEO)

### **dBair System**

- dBair Safety Managers System
- dBair Safety Managers System Octave System
- dBair Environment Assessment System
- dBair Environment Assessment Octave System
- dBair Safety & Environment Assessment System
- dBair Safety & Environment Assessment Octave System

### **Applicable Standards**

- IEC 61672-1:2013
- IEC 61672-1:2014 (Where Octave Brands Fitted : **Only model GA141EO, GA141SEO**)
- IEC 61672:1993 amendment 1:2000 (Where Exposure Fitted)

### **Microphone**

Class 1: **Only models GA141S, GA141SO, GA141E, GA141EO, GA141SE, GA141SEO**

- Type 1 Pre-Polarised 1/2" (13.2 mm)
- Electret Condenser Microphone -27 dB + 2 dB re 1V/Pa

Class 2: **Only models GA241S, GA241SO**

- Type 2 Pre-Polarised 1/2" (13.2 mm)
- Electret Condenser Microphone -32 dB + 3 dB re 1V/Pa

### **Measurement Range**

Linear Operating Range: 95dB

### **Noise Floor**

### **Typical**



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- A' Weighting <15 dB(A) rms
- 'C' Weighting <18 dB(C) rms
- 'Z' Weighting <18 dB(Z) rms

#### **Frequency Weightings**

- Measurement 1:A, C or Z
- Measurement 2:A, C or Z

#### **Frequency Range**

- 1Hz-20 kHz (electrical characteristics)
- Class 1: 12.5 Hz-20 kHz (Including microphone) **Only models GA141S, GA141SO, GA141E, GA141EO, GA141SE, GA141SEO**
- Class 2: 12.5 Hz-16 kHz (Including microphone) (TBD) **Only models GA241S, GA241SO**

#### **Time Weighting**

- Measurement 1: Slow, Fast, Impulse
- Measurement 2: Slow, Fast, Impulse

#### **Display**

2.4" Full Colour TFT 240x320 pixels

#### **Dual Measurements**

Simultaneous dual measurement with independent time and frequency weightings.

#### **Octave Band Analysis**

Where fitted 1/1 or 1/3 octave band analysis on measurement 1 only. **Only model GA141SEO**

#### **Measurement Parameters**

##### **dBair Safety: Only models GA141S, GA241S**

LSPL, LEQ, LMAX, LMAX, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator

##### **dBair Safety Octave: Only models GA141SO, GA241SO**

LSPL, LEQ, LMAX, LMAX, Peak, LEP'd, Exposure Points, Dose, Hearing Protector Calculator  
1/1 or 1/3

##### **Octaves: Only models GA141SO, GA241SO**

LSPL, LEQ, LMAX, LMAX, Peak

##### **dBair Environmental: Only models GA141E**

LSPL, LE, LEQ, LMAX, LMAX, 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: only models GA141EO**

LSPL, LE, LEQ, LMAX, LMAX, 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: Only models GA141EO**

LSPL, LE, LEQ, LMAX, LMAX, Ln's, Peak

##### **dBair Safety & Environmental: Only models GA141SE**

LSPL, LE, LEQ, LMAX, LMAX, 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: Only models GA141SEO**

##### **Octaves: Only models GA141SEO**

LSPL, LE, LEQ, LMAX, LMAX, Ln's, Peak

#### **Languages:**



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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

**Input / Output Connection**

Micro USB Type B

**Power**

Batteries: 4 x AA (1.5V)

Life: Approximately 16 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: 480g approximately (including batteries)

[\*\*Accessories standard for all model\*\*](#)

+ Windshield KG205

+ dB Air Micro USB Cable

## **Option Accessories:**

+ **GA607:** Dual Level Calibrator (Option)



|                      |  |
|----------------------|--|
| Applicable Standards | IEC60942:2003 Sound Calibrators, Class 1/C   |
| Output               | 94dB or 104dB relative to 20μPa<br>Nominal Sound Pressure level at 101.3kPa (760mm Hg) 23° & 50%RH |
| Tolerance            | ± 0.3dB  |
| Harmonic Distortion  | < 3%   |
| Temperature Range    | -10°C to 50°C  |
| Batteries            | 2 x 3V CR2032 (coin cell)<br>Life: Approx. 70 Hours  |
| Dimensions           | Cavity Diameter: 1/2" microphone standard<br>Length: 140mm<br>Diameter: 51mm<br>Weight: 230g       |

+ **KA017:** Kit Case for dBAir and Accessories (included only) for Kit Set (option)

+ **KA022 :** Weatherproof Enclosure (Option)

+ **PSU5:** Power Supply (Option)

+ **ZL1093-01:** Microphone Extension Cable (1m) (Option)

+ **ZL1061-01:** AC Output Cable (Option)

## **Option CASTLE CLOUD SOFTWARE: The Castle Cloud Software is for all Sonus and dBAir Models**

CCST Starter Castle Cloud Account 1 User, 2 Instruments **Free**

CCPROFREE: FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems) **Free with Kit set**

CCPRO1: Pro Account for Castle Cloud - 5 Users, 5 Instruments (1 Year)

CCPRO2: Pro Account for Castle Cloud - 5 Users, 5 Instruments (2 Year)

CCPRO3: Pro Account for Castle Cloud - 5 Users, 5 Instruments (3 Year)

CCPRO11: Pro+ Account for Castle Cloud - 25 Users, 25 Instruments (1 Year)

CCPRO12: Pro+ Account for Castle Cloud - 25 Users, 25 Instruments (2 Year)

CCPRO13: Pro+ Account for Castle Cloud - 25 Users, 25 Instruments (3 Year)

CCPAC1: Castle Cloud Partner Account (1 year, Castle Brand)

CCPAC2: Castle Cloud Partner Account (2 year, Castle Brand)

CCPAC3: Castle Cloud Partner Account (3 year, Castle Brand)

CCPAB1: Castle Cloud Partner Account (1 year, Partner Brand)





CCPAB2: Castle Cloud Partner Account (2 year, Partner Brand)

CCPAB3: Castle Cloud Partner Account (3 year, Partner Brand)

CCSETUP: Set up for Partner Account with Partner Branding

**Choose Your Cloud Solution (option)**

| FEATURE                     | STARTER   | PRO   | PRO+  |
|-----------------------------|---|---|---|
| Number of users             | 1   | 5   | 25  |
| Number of Instruments       | 2   | 5   | 25  |
| Storage Space               | 500MB   | 5Gb   | 25Gb  |
| File Manager                |    |    |    |
| Message System              |    |    |    |
| Exposure Calculator         |    |    |    |
| Hearing Protection Database |    |    |    |
| BS 4142 Calculator          |   |   |   |
| Lden Calculator             |  |  |  |
| Save Calculator Data        |   |  |  |
| Live Calibration Data       |   |  |  |
| Factory Mapping             |   |  |  |
| Extended Database Functions |   |  |  |
| Report Generator            |   |  |  |
| Report Auto Emailing        |   |  |  |
| Employee Database           |   |  |  |
| Location Database           |   |  |  |

| FEATURE                | STARTER | PRO   | PRO+  |
|------------------------|---------|---|---|
| Task Database          |         |  |  |
| Risk Assessment System |         |  |  |

## Option Kit Set:

### Handheld Safety Systems



#### **-Model NK101 dBAir Safety Managers System - Class 1**

*Includes:*

- + GA141S dBAir Safety Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

#### **- Model NK102 dBAir Safety Managers System - Class 2**

*Includes:*

- + GA241S dBAir Safety Class 2
- + GA601 Calibrator - Single Level, Class 2
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

#### **- Model NK103 dBAir Safety Managers System with Octaves - Class 1**

*Includes:*

- + GA141SO dBAir Safety Octave (1/1) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For System)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

**- Model NK104 dBAir Safety Managers System with Octaves - Class 2**

*Includes*

- + GA24ISO dBAir Safety Octave (1/1) Class 2
- + GA601 Calibrator - Single Level, Class 2
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

**Handheld Environmental Systems**



**- Model NK105 dBAir Environmental Assessment System - Class 1**

- + GA141E dBAir Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

**- Model NK106 dBAir Environmental Assessment System 1/3 Octaves - Class 1**

*Includes:*

- + GA141EO dBAir Environmental Octave (1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

Outdoor Environmental Systems



**- Model NK107 dBAir Environmental 48 Hour System - Class 1**

*BS4142:2014 Assessment System, Boundary Assessment System*

*Includes:*

- + GA141E dBAir Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK108 dBAir Environmental 48 Hour System 1/3 Octaves - Class 1**

*Includes:*

- + GA141EO dBAir Environmental Octave (1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK116 dBAir Environmental 4 Day System - Class 1**

*Includes:*

- + GA141E dBAir Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA023 Weatherproof Kit Case for dBAir (4 Day)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK117 dBAir Environmental 4 Day System 1/3 Octaves - Class 1**

*Includes:*

- + GA141EO dBAir Environmental Octave (1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)





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- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA023 Weatherproof Kit Case for dBAir (4 Day)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK118 dBAir Environmental 8 Day System - Class 1**

*Includes:*

- + GA141E dBAir Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA024 Weatherproof Kit Case for dBAir (8 Day)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK119 dBAir Environmental 8 Day System 1/3 Octaves - Class 1**

*Includes:*

- + GA141EO dBAir Environmental Octave (1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA024 Weatherproof Kit Case for dBAir (8 Day)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK109 dBAir Environmental Long Term System with Back-up Battery**

*Includes:*

- + GA141E dBAir Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW401 Weatherproof Preamp & Shield with de-humidifier (Pro-DX range)
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK110 dBAir Environmental Long Term System 1/3 Octaves with Back-up Battery**

*Includes:*

- + GA141EO dBAir Environmental Octave (1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW401 Weatherproof Preamp & Shield with de-humidifier (Pro-DX range)
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

Handheld Safety & Environmental Systems



**- Model NK111 dBAir Safety & Environmental Assessment System - Class 1**

*Includes:*

- + GA141SE dBAir Safety & Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + dB001 dBAir Rubber Case

**- Model NK112 dBAir Safety & Environmental Assessment System 1/3 Octaves - Class 1**

*Includes:*

- + GA141SEO dBAir Safety & Environment Octave (1/1, 1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

**-Model NK113 dBAir Safety & Environmental Assessment System - Class 2 EXPORT ONLY**

*Include:*

- + GA241SE dBAir Safety & Environment Class 2
- + GA601 Calibrator - Single Level, Class 2
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + KA017 Protective System Carry Case (dBAir)
- + dB001 dBAir Rubber Case

[Outdoor Safety & Environmental Systems](#)



**- Model NK114 dBAir Safety & Environmental Short Term System - Class 1**

*Includes:*

- + GA141SE dBAir Safety & Environment Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1

**- Model NK115 dBAir Safety & Environmental Short Term System 1/1 & 1/3 Octaves - Class 1**

**Construction Assessment System, Railway Assessment System,  
Consultants Assessment System(does not include tripod)**

*Includes:*

- + GA141SEO dBAir Safety & Environment Octave (1/1, 1/3) Class 1
- + GA607 Calibrator, Dual Level, Class 1 (includes GA690 Barometer)
- + CCPROFREE FREE Pro Account for Castle Cloud - 5 Users (1 Year) (For Systems)
- + MW404 Weatherproof Microphone Housing for dBAir
- + KA022 Weatherproof Kit Case for dBAir (48 Hour)
- + ZL2141-03 Weatherproof Microphone Cable for KA022 3m 1
- + KT102 Heavy Duty Tripod (Up to 1.6m high) 1