

## CR:110A doseBadge Personal Noise Dosimeter

### Key Features of the doseBadge

- Measures & stores the essential Noise at Work noise parameters
- Very simple operation
- Compact, rugged design weighs only 51g
- Time history data stored as standard
- Robust metal case prevents damage & servicing costs
- No external controls, cables or displays reduces damage, tampering or misuse
- NoiseTools Analysis & Reporting software with licence-free installation & free lifetime updates
- 90 minute (typical) charge time with 30 hours (typical) battery life
- Intrinsically safe version available with ATEX, EEx, IECEx & FM Certification for hazardous atmospheres



#### Everything you need for Noise at Work

The doseBadge is the original wireless personal noise dosimeter and is the ideal instrument for personal noise exposure measurements.

The doseBadge will measure, store and calculate the parameters essential for compliance with the Noise at Work Regulations including  $L_{Aeq}$ ,  $L_{Cpeak}$  &  $L_{EP,d}$ . Along with these overall values, the doseBadge will store a Time History, or Noise Profile, throughout the measurement.

#### The doseBadge survives in the toughest environments

The doseBadge has been designed to survive use in the toughest and harshest environments.

There are no cables, controls or displays to damage and the microphone, battery and electronics are all housed in a robust and lightweight metal case which is strong enough to withstand being dropped, knocked or even stood on.

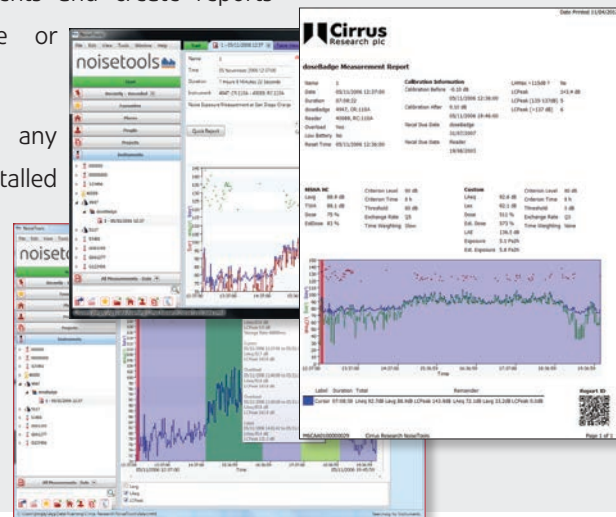
#### Create measurement reports quickly and simply

The NoiseTools software is supplied with the doseBadge and this software has been designed to be simple to use and give you the information you really need without being complicated or complex.

Simply download your measurements and create reports quickly and easily with simple or comprehensive options available.

NoiseTools is supplied free from any licencing restrictions and can be installed onto as many PC's as needed without having to purchase additional copies.

Updates for NoiseTools are available free of charge from the Cirrus website.



# Ordering Information & Specifications

## doseBadge Measurement Kits

The doseBadge is available as a complete measurement kit with either standard or Intrinsically Safe doseBadge units.

Standard Kit	Intrinsically Safe Kit	Black Case doseBadge Kit	Contents
CK:110A/1	CK:110AIS/1	CK:110A/1-BLK	doseBadge Measurement Kit with 1 doseBadge & 5 way charger
CK:110A/2	CK:110AIS/2	CK:110A/2-BLK	doseBadge Measurement Kit with 2 doseBadges & 5 way charger
CK:110A/3	CK:110AIS/3	CK:110A/3-BLK	doseBadge Measurement Kit with 3 doseBadges & 5 way charger
CK:110A/5	CK:110AIS/5	CK:110A/5-BLK	doseBadge Measurement Kit with 5 doseBadges & 5 way charger
CK:110A/10	CK:110AIS/10	CK:110A/10-BLK	doseBadge Measurement Kit with 10 doseBadges & 2 x 5 way chargers

A doseBadge measurement kits includes:

- CR:110A, CR:110AIS or CR:110A-BLK doseBadges as appropriate
- RC:110A Reader Unit
- CK:100 Carrying Case
- Mounting Kits for each doseBadge
- CU:195A Mains Power Supply (with UK, EU or US style plug)
- NoiseTools Software CD
- User Manual & Quick Start Guide
- ZL:102 USB Data Cable
- Certificates of Calibration
- Batteries for the doseBadge Reader

## Optional Accessories

UA:110 doseBadge Windshield	RC:101A Keyfob Remote Control
CM:100/A Type A Helmet Mount	CM:100/E Type E Helmet Mount
	CM:100/H Type H Helmet Mount

## Specifications\*

### Applicable Standards

IEC 61252:1993 Personal Sound Exposure Meters  
ANSI S1.25:1991 Personal Noise Dosimeters Class Designation 2AS-90/80-5  
RC:110A: Internal Acoustic Calibrator to IEC 60942:2003 Class 2

### Measurement Range (Typical)

70dB(A) to 130dB(A) RMS, 120dB(C) to 140dB(C) Peak

### Measurement Functions

#### Overall Measurement Data

doseBadge Configuration (Badge Serial Number, Date & Time)  
Calibration Record  
Measurement Duration  
Highest Peak(C) Sound Level during the measurement  
Overload Exceedence  
115dB(A) Maximum Sound Level Exceedence  
Battery Status

L<sub>Aeq</sub>, L<sub>EX</sub>,8h, L<sub>AE</sub>, % Dose, Exposure (Pa2h)  
Estimated % Dose, Estimated Exposure (Pa2h)

1 Minute Time History of:  
L<sub>Aeq</sub>, Peak(C) Level & Battery Level

### Frequency Weightings

'A' for all RMS measurements  
'C' for Peak Sound Pressure

### Configuration Options

Channel 1: Independent User Configuration of:  
Exchange Rate: 3dB, 4dB or 5dB  
Criterion Level: 80dB, 85dB, 90dB  
Criterion Time: 8hrs, 12hrs, 16hrs, 18hrs  
Threshold: None, 80dB, 90dB  
Time Weighting: None, 'S' (Slow)

Channel 2: Preset to  
Exchange Rate:3dB  
Criterion Level: 85dB  
Criterion Time: 8hrs  
Threshold: None  
Time Weighting: None

### Memory

CR:110A doseBadge  
The CR:110A doseBadge can store up to 24 hours of data in a single measurement  
RC:110A Reader  
Up to 999 Individual doseBadge Measurements

### Power

**RC:110A doseBadge**  
Internal NiMH Battery. Typical Battery Life 30 hours @ 80dB  
**RC:110A Reader**  
2 x AA/LR6 with Auto Power Switch Off  
**CU Series Chargers**  
CU:195A Mains Power Supply. Fast Charge Option

### Output

**CR:110A doseBadge**  
Wireless Infrared to RC:110A Reader Unit  
**RC:110A Reader**  
USB 2.0 (which also provides power to the RC:110A Reader)

### Dimensions

**CR:110A doseBadge**  
Microphone Apex Ø13.0mm, Base Ø47mm, Height 38mm

### Weight

CR:110A doseBadge 51g (1.8oz)  
RC:110A Reader 400g (14oz)

### Temperature

-10°C to +50°C Operating  
-20°C to +60°C Storage

### Humidity

Up to 95% RH Non-Condensing

### Software

NoiseTools software supplied as standard with license free installation and free of charge upgrades available from the Cirrus website

\* The specifications shown in this datasheet are a summary of the overall specifications for the doseBadge Noise Dosimeter. Full details are available on request or from the Cirrus website.

## Intrinsic Safety Certification

The CR:110AIS Intrinsically Safe version of the doseBadge is available meeting the requirements of ATEX, EEx, IECEx and FM.

Full details of the certifications and the the certification documents are available for download from the Cirrus Research plc website or on request

