REED INSTRUMENTS

Noise Dosimeter
Model **R8086**

TECHNICAL DATA



This personal Noise Dosimeter is designed for occupational and environmental noise monitoring. It measures and calculates key exposure metrics including Time-Weighted Average (TWA) and Noise Dose (%), with configurable exchange rate, criterion level, and threshold level settings. The instrument also captures peak sound pressure levels and provides comprehensive data logging to support regulatory compliance and workplace safety assessments.

Features

- Noise dosimeter, sound level meter and data logger
- Measures SPL, Dose%, LPMAX, LPMIN, PKMAX, LEQ, SEL, LEP8,TWA8, LVAG, LN5%, LN10%, LN50%, LN90%, and LN95%
- Calculates Noise Dose (%) for personal sound exposure monitoring
- A, C and Z frequency weighting
- Fast, Slow and Impulse time weighting
- Compact design with flexible armband and belt clip for long-term monitoring
- Designed to meet noise survey requirements for OSHA, MSHA, DoD, ACGIH, ISO85, and ISO90 standards
- USB interface for PC software
- Real-time clock with date and time stamping
- Selectable sampling interval (1 second to 23:59:59)
- Low battery indicator and auto shut-off
- Includes dosimeter, microphone with clip, windshield ball, flexible armband, fastener for armband with screw, belt clip with screws, USB cable, carrying case and battery

Applications

- Personal accumulated noise exposure
- Construction sites
- Ensuring safe working conditions
- Code enforcement
- Traffic
- Recording of acoustic levels for environmental impact studies



Continued…

REED INSTRUMENTS

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2 YEAR WARRANTY

TECHNICAL DATA

Specifications

Measurement Type:	Sound Pressure Level: dB (SLM)
Personal Noise Exposure:	Dose % (NDM)
Measurement Mode (NDM):	SPL, Dose%, LPMAX, LPMIN, PKMAX, LEQ, SEL, LEP8, TWA8, LVAG, LN5%, LN10%, LN50%, LN90%, LN95%
Measurement Mode (SLM):	SPL, LEQ, SEL, PKMAX
Measuring Range(s):	30-140dB (A) 35-140dB (C) 0-140dB (Z)
Dynamic Range:	60dB
Accuracy:	±1.5dB (94dB 1kHz)
Resolution:	0.1 dB/%
Response Time:	1sec
Frequency Range:	20Hz to 8kHz
Frequency Weighting:	A, C, Z
Time Weighting:	Fast/Slow/Impulse
Microphone:	0.5" (12.7mm) electret condenser

General Specifications

Display:	999999-Count LCD
Display Refresh Rate:	1 Time/sec
Datalogging Capabilities:	Yes
Real-Time Clock and Date Stamp:	Yes
Selectable Sampling Rate:	Yes (1 second to 23 hours, 59 minutes ad 59 seconds)
Internal Memory:	1,000,000 records (SLM) / 10,000 records (NDM)
Auto Shut-off:	Yes (after 15 mins/off)
Belt and Armband Clip:	Yes
Tripod Mountable:	Yes
Low Battery Indicator:	Yes
Power Supply:	9V battery
PC Connectivity:	USB Cable (USB-C)
Software:	PC Software
Software OS Compatability:	Windows 7/8/10/11
Dose Standard Modes:	Occupational Safety and Health Administration (OSHA, USA), Mine Safety and Health Administration (MSHA, USA), Department of Defense (DoD, USA), American Conference of Governmental Industrial Hygienists (ACGIH, USA), ISO85/ISO90 (Europe), User Defined
Product Certifications:	CE, IEC 61252-1993, IEC 61672-1-2002, ANSI S1, 25-1992, ANSI S1,4-1983, ANSI S1,43-1997
Operating Temperature:	41 to 104°F (5 to 40°C)
Storage Temperature:	14 to 140°F (-10 to 60°C)
Operating Humidity Range:	<80%
Dimensions:	4.4 x 2.6 x 1.3" (113 x 65 x 34mm)
Weight:	5.6oz (245g)

Model	Description
R8086	Noise Dosimeter
REED-WB2	Windshield Ball for Noise Dosimeters
CA-05A	Small Soft Carrying Case
R8888	Medium Hard Carrying Case
R8090	Sound Level Calibrator
R8086-NIST	Noise Dosimeter w/Calibration Certificate