

CR:260A

Sound Level Meters



40 110
Let JBZ LF JBZ
69.8 66.3
UR
Octave Band 500 Hz
RUN TIME 1= 00:00:09

CR:263A
INTEGRATING AVERAGING
SOUND LEVEL METER

Mode

CR:260A

Key Features

- > Simple operation with single function buttons
- > Complies with the latest IEC 61672 standard as well as IEC 60651 and IEC 60804 for compliance with virtually all noise measurement regulations
- > Available with Class 1 or Class 2 accuracy
- > User selectable A & C Weighting for HML measurements & machinery noise testing on all versions
- > Octave Band Frequency Analysis (CR:264A & CR:263A) to help in the selection of hearing protection (PPE)
- > +Version upgrade adds Data Logging, the ability to download measurements to a PC and additional noise measurement functions such as L_{10} , L_{90} and L_{AE} (SEL)
- > USB connection for simple downloading of data with the +Version upgrade
- > CR:261S Sound Level Meter available for Vehicle Noise Testing to ISO 5130:1982 & §29 StVZO with PTB Type Approval - Please refer to the CK:261S Datasheet for further information
- > 2 Year standard warranty with 10 year extended warranty giving you up to 12 years of cover

Introduction

The CR:260A Series of Sound Level Meters are suitable for a wide range of applications. From Noise at Work Risk Assessments to Vehicle Noise Testing to Environmental Noise Measurements, the CR:260A Series provides a solution.

The instruments have been designed to be extremely simple to use while meeting the latest Standards for Sound Level Meters. Available with Class 1 or Class 2 accuracy along with the options of Octave Band Filters and a Data Logging upgrade, there is an instrument to meet your noise measurement needs.

Reliable, accurate and affordable, the CR:260A Series are the ideal instruments for your noise measurement applications.

Instrument Selection						
	Class 1	Class 2	L_{Aeq}	Peak(C)	1:1 Octave Band Filters	Software Support
CR:262A		✓	✓	✓		
CR:262A+		✓	✓	✓		✓
CR:261	✓		✓	✓		
CR:261+	✓		✓	✓		✓
CR:264		✓	✓	✓	✓	
CR:264+		✓	✓	✓	✓	✓
CR:263	✓		✓	✓	✓	
CR:263+	✓		✓	✓	✓	✓



Applications



Occupational Noise Measurement

- > Simultaneous measurement of L_{AF} , L_{Aeq} , L_{AFmax} and L_{Cpeak}
- > Time history of noise levels
- > User selectable 'A' or 'C' weighting
- > Risk Assessment of Workplace Noise Levels
- > Measurements for the selection of hearing protection with CR:264A & CR:263A using Octave Band Filters
- > Calculate Noise Exposures with the Deaf Defier Software and create measurement reports (+Version)

Environmental Noise Measurement

- > Boundary noise measurements
- > External noise impact assessments
- > Machinery noise testing
- > Motorsport noise measurements
- > Entertainment noise
- > Time History reports with the +Version Upgrade

General Noise Measurements

- > R&D noise measurements
- > Production line noise testing
- > Quality control
- > Sound power measurements
- > Fire alarm testing

+Version Data Logging Upgrade

All of the CR:260A Sound Level Meters can be upgraded to the +Version, which unlocks the additional functions of the instrument. The main features of the +Version are:

- > Up to 100 Measurements stored in memory with 1 second Time History
- > Download Measurements to a PC and the Deaf Defier 3 Software
- > User selectable Frequency Weighting (A, C or Z) & Time Weighting (F, S or I)
- > Measurement of L_n levels & Sound Exposure Levels (L_{AEP})

To upgrade to the +Version, a unique upgrade key is required to unlock the extra functions of the instrument. Deaf Defier3 allows measurements to be presented as reports and all of the parameters viewed for analysis. In addition, the configuration of the instrument which can be changed as required. Please visit the Cirrus website for more information.

Measurement Kits

All versions of the CR:260A Series can be supplied as complete measurement kits. The kit includes the following parts:

- > CR:260A Series Sound Level Meter
- > CR:514 or CR:515 Acoustic Calibrator
- > UA:237 Windshield
- > CK:250 Carrying Case
- > User Manuals, Certificates of Calibration & Batteries



All CR:260A instruments are supplied with a Software CD and USB download cable. This allows the user to upgrade their instrument to the +Version by simply connecting it to the Deaf Defier3 software and entering a license key.

Ordering Information

Instrument Only:

- > CR:262A Class 2 Sound Level Meter
- > CR:261A Class 1 Sound Level Meter
- > CR:264A Class 2 Sound Level Meter with 1:1 Octave Band Filters
- > CR:263A Class 1 Sound Level Meter with 1:1 Octave Band Filters

Measurement Kits

- > CK:262A Class 2 Sound Level Meter Measurement Kit
- > CK:261A Class 1 Sound Level Meter Measurement Kit
- > CK:264A Class 2 Sound Level Meter Measurement Kit with 1:1 Octave Band Filters
- > CK:263A Class 1 Sound Level Meter Measurement Kit with 1:1 Octave Band Filters

+Version Data Logging Upgrade

- > UP:260/1 Upgrade to +Version with Data Logging

Other options and accessories may be available for the CR:260A Series. Please contact Cirrus Research plc or your local representative for a full list of the options and accessories available.

The Deaf Defier3 Software is supplied with no licensing restrictions. Updates can be downloaded from the Cirrus Research plc website.

All Cirrus Research plc Sound Level Meters, Noise Dosemeters and Acoustic Calibrators are supplied with a standard 2 year warranty and an optional extendable 10 year warranty.

Specifications

Applicable Standards

IEC 61672-1:2002 Class 1 or 2 Group X
IEC 60651:2001 Type 1 I or Type 2 I
IEC 60804:2000 Type 1 or Type 2
ANSI S1.4 with NK:70 Random Incidence Adaptor Fitted
1:1 Band Filters to IEC 61260 Class 1 (where fitted)

Microphone

Class+ Pre-polarized Free-field 1/2" Condenser
Random Incidence to ANSI S1.4 with NK:70 Adaptor

Microphone Preamplifier

Class 1 Instruments MV:200D Removable Preamplifier,
Class 2 Instruments MV:200D Integral Preamplifier

Time Weightings

'F' (Fast) to IEC 61672-1:2002 Class 1 or 2

+ Version also provides

'S' (Slow) & 'I' (Impulse) to IEC 61672-1:2002 Class 1 or 2

Frequency Weightings

Channel 1 - User selectable 'A' or 'C' weighting, Channel 2 'C' for Peak

+ Version also provides 'A', 'C' or 'Z' for Channel 1, Channel 2 'C' for Peak

Frequency Bands Nominal Frequencies (CR:264A & CR:263A only)

1:1 Octave Band Filters - 31Hz to 16kHz

Measurement Range (Typical)

Broadband	24dB(A) to 140dB(A) Class 1, 26dB(A) to 140dB(A) Class 2 143dB(C) Peak (70 to 140dB Range)
1:1 Octave Bands	15dB to 140dB (1kHz 1:1 Octave Band)

Noise Floor (Typical)

Broadband	21dB(A) Class 1, 23dB(A) Class 2
1:1 Octave Band Filters	15dB(Z) @ 1kHz 1:1 Octave Band

Display

Graphical LCD with Quasi-Analogue Display
Selected measurement parameter with level
Warnings for Overload, Under Range & Battery Level
Time & Frequency Weighting Elapsed measurement time
Real time short Leq (broadband mode) Graphical 1:1 Octave Bands
Recalled Last Measurements Measurement Range
Instrument settings

Measurement Storage

The last measurement is stored.

+ Version also provides

100 broadband or 1:1 Octave Band measurements
Short L_{eq} Time History: Up to 24 hours at 1 second

Automatic Measurements (+ Version Only)

The unit can be set to record and store data over fixed times of:

1 minute	5 minutes	10 minutes	15 minutes
30 minutes	1 hour	8 hours	12 hours

or a user defined period

Available Measurements

Broadband Mode:

L_{XF} Sound Level (Not Stored), Fast Time Weighting
 L_{Xeq} Equivalent Continuous Sound Level
 L_{XFmax} Maximum Sound Level, Fast Time Weighting
 L_{XFmin} Minimum Sound Level, Fast Time Weighting
 L_{Cpeak} Peak Sound Pressure, dB(C)
Measurement Duration
Where X = Frequency Weighting or 'A' or 'C' (User Selectable)

1:1 Octave Band Mode:

Selected Frequency,
Filtered L_{ZF} (Not stored), dB(Z), Fast Time Weighting
Filtered L_{Zeq} Equivalent Sound Level for each Octave Band
 L_{Aeq} , L_{Ceq} & L_{Zeq} Equivalent Sound Level
Measurement Duration

+ Version allows the following measurements to be made

Broadband Mode:

L_{XY} Sound Level (Not Stored)
 L_{Xeq} Equivalent Continuous Sound Level
 L_{XYmax} Maximum Sound Level L_{XYmin} Minimum Sound Level
 L_{Cpeak} Peak Sound Level L_{XE} , L_{Xleq} or L_{XFleq}
 L_{Xn} (0.1 to 99.9) Five Simultaneous values
Date & Time of measurement L_{Xeq} Short Leq Time History
Where X = dB(A), dB(C) or dB(Z) Frequency Weighting.
Y = Fast(F), Slow(S) or Impulse(I) Time Weighting

1:1 Octave Band Mode:

Selected Frequency
Filtered L_{ZF} (Not stored), dB(Z), Fast Time Weighting
Filtered L_{Zeq} Equivalent Sound Level
 L_{Aeq} , L_{Ceq} & L_{Zeq} Equivalent Sound Level
Measurement Duration
Date & Time of Measurement

Physical

Dimensions	340mm x 75mm x 25mm
Weight	450 gms
Power	2 x 1.5v Alkaline LR6/AA
Battery Life	Broadband Mode Typically >24 hours 1:1 Octave Band Mode Typically >12 hours

Environmental

Temperature	Operating -10°C to +50°C	Storage -20°C to +60°C
Humidity	Up to 95% RH Non Condensing	

Electromagnetic Performance

IEC 61672-1:2002
IEC 61672-2:2003
Except where modified by EN 61000-6-1:2007 & EN 61000-6-1:2007

External Connections

USB Type B for Data Connection (available for + Version only)

Output Cables (+ Version Only)

Standard: ZL:100 USB Cable

Software Support (+ Version Only)

Deaf Defier3 for Windows. (Version v3.2.0 or later)
The Deaf Defier3 for Windows requires Microsoft Windows 98SE or later



Acoustic House, Bridlington Road
Hunmanby, North Yorkshire, YO14 0PH
United Kingdom
Tel: 0845 23 0 2434 (Local Rate UK Only)
+44 (0) 1723 891655
Fax: +44 (0) 1723 891742
Email: sales@cirrusresearch.co.uk
Web: www.cirrusresearch.co.uk

Your Cirrus Distributor