

SERIES 63X

Digital Sound Level Meter

- Ideal for environmental or occupational monitoring
- Easy to use switch-on-and-go functionality
- Latest digital technology with a high resolution colour TFT display/LCD display
- Pre-configured set-ups for occupational and environmental measurements
- Voice notes to annotate measurements
- Audio (WAV) recording
- Single measurement range up to 140dB, no range adjustment required
- Data markers, back erase function and audio recording Level triggered events for transient measurements
- Real-time octave and 1/2 octave measurements
- Simultaneous measurement of all parameters with all frequency and time weightings
- Class 1 or Class 2 models available
- Removable pre-amp
- Environmental outdoor kit available
- Automatic calibration with Acoustic calibrator
- Internal Clock
- PCABSIP40



Overview

With advanced functionality and simple user interface, the 63x range is designed to make occupational and environmental noise measurements quickly and easily.

Applications

Occupational Noise Measurement

- Workplace noise assessments according to 1509612, OSHA 29CFR 1910.95
- Selection of hearing protection
- Calculation of noise exposure
- Ensuring compliance with workplace noise legislation

Environmental Noise Measurement

- Boundary noise assessments
- Noise nuisance complaints
- Measurements according to 1501996, B54142 UK Construction Section 61 notices

Occupational Noise Measurements

The CEL-630 Series is designed to make workplace noise measurements as quick and simple as possible. The displayed information can be made as simple or comprehensive as required and all measurement parameters are stored simultaneously, so no incorrect measurements can be made.

When the unit is calibrated with the CEL-120 calibrator, the calibration dates and times are stored and downloaded to Casella insight software, validating the accuracy of measurements.

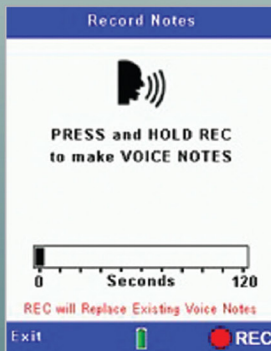
Average, peak, and octave band measurements are performed at the same time, so only one measurement needs to be made for all workplace noise applications.

- Simultaneous measurements of all workplace noise parameters
- Standard set-ups for workplace noise legislation
- Measures parameters for hearing protection selection by the SNR, HML and octave band method
- Analyse time history of noise levels
- Optional high range microphone, up to 165dB



Lightweight with a bright colour display, the 63x makes workplace noise measurements easy

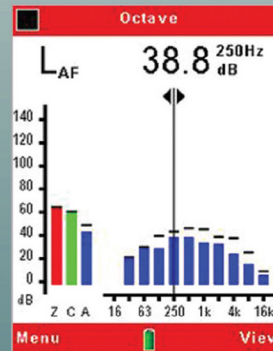
Simple User Interface...



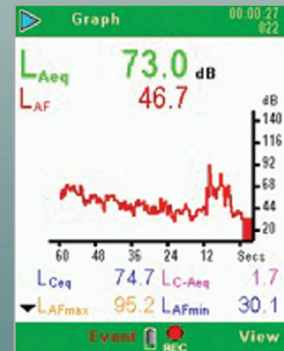
Record voice notes to easily identify measurements



Simple icon based user interface



Octave measurements for the selection of PPE



See the time history of noise levels

Environmental Noise Measurements

Data can be marked to signify any significant events, the data from which can be removed afterwards in insight software.

Up to 60 hours of audio files can be stored, commonly used for noise source identification. Stored audio can be played back on the instrument using headphones or downloaded to Casella insight software.

For unattended monitoring, event mode (CEL-633) allows trigger levels (dB) to be set, so additional data (e.g. L_{eq} , L_{max}) is stored together with the audio file for later play back or analysis, as well as a profile down to 10ms intervals.

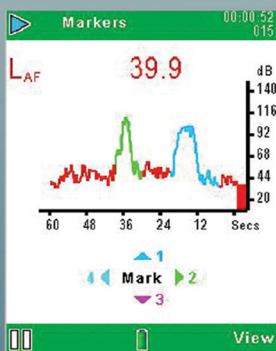
An environmental noise monitoring kit is available which protects the instrument and microphone from the weather and allows unattended monitoring for up to 10 days.

- Simultaneous broadband and frequency measurement
- Data markers
- Back erase function
- Real-time frequency analysis
- Single measurement range
- Triggered 'event' capture
- Standard soft kit case



A dedicated environmental kit is available

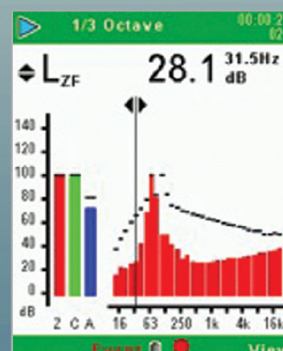
POW1 available - Rechargeable external battery pack for use for more than 24 hours



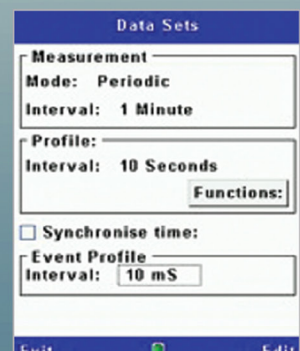
Significant noise events can be marked



Listen to audio files from the 63X Series with headphones



Realtime frequency analysis and single measurement range



Set 2 levels of time history storage

63x Series Model Selection

Model Functionality

There are 2 models available, please see the model selection table below for the one you require (e.g. CEL-632). Then select your frequency analysis requirements by adding 'A' for broadband, 'B' adds octave band and 'C' adds 1/3 octave e.g. CEL-632C. Then add either a 1 or a 2 to denote the accuracy class e.g. CEL-632C1. Each instrument comes complete with a standard kit case, windshield and calibration certificate.

63x series	632	633
Cumulative Results	●	●
Period Results	●	●
Profile Results	●	●
Statistical Values (Ln%)	●	●
Audio Voice Notes	●	●
Marker Events	●	●
Level Events		●
External Events	●	●



CASSELLA CEL-632/IP 002-01.06	
Serial number:	2934659
Response:	Freefield
Start:	29-Jul-2016 16:37:23
Duration:	0:02:12
Pause Duration:	0:00:30
Overload No.:	0
Run:	3
CALIBRATION	
Before:	29-Jul-2016 12:22:41
RESULTS (dB)	
L _{eq}	68.7
L _A min	31.6
L _A C	88.8
Location	
Operator Name	
Signature	
Witness	



Management Software

Casella Insight data management software is a powerful yet simple tool to download, analyse and report from either workplace or environmental noise data.

- Analysis of noise level time history
- Replay voice notes and event audio
- Intuitive user interface
- Remove anomalous data from results
- Analysis of time history
- Generate comprehensive reports
- Store data by, person, place, location
- Manage multiple instruments and calibration

Switch between managing data or instruments with simple tabs

Simple tree structure to manage data e.g. person, place, etc.

Time history may be viewed, analysed and annotated as required

Sort data by person, process, etc.

Multiple parameters can be displayed and sorted simultaneously

Data can be dragged and dropped to the tree structure as required

Data may be graphed and copied to other applications

For more detail on Casella Insight Data Management Software, please visit the 'Products' section of casellasolutions.com

Technical Specification				
Standards	IEC61672: 2013 Class 1 and 2, ANSI S1.4: Type 1 and 2 1983 (R2006), IS 15575			
Filters	IEC61260: Class 0, ANSI S1.43: (1996)			
Note	IEC61672 replaces 2 obsolete standards, IEC60651 and IEC60804			
Certification	PTB, CE and Calibrated by NPL India			
General				
Microphone	1/2" Pre-polarised Electret / Condenser			
Measurement range	20-140dB RMS (143.3dB peak)			
Total noise floor	19dB(A) Class 1, 25dB(A) Class 2			
Time weightings	Fast, Slow and Impulse simultaneously			
Frequency weightings	A, C and Z (un-weighted) simultaneously			
Frequency bands	11 Octave bands 16Hz-16kHz (B&C models) 33 Octave bands 12.5Hz-20kHz (C models)			
Frequency range	6Hz to 20KHz			
Amplitude weighting (Q)	3, 4 and 5 simultaneously			
Back erase	Last 10s in cumulative mode (all models)			
Timers	Duration 1s-24h			
On/Off timers	6 sets with selectable times and a repeat function			
GPS (Optional)	In built			
Physical				
Tripod mount	1/4" Whitworth socket			
Batteries	3x AA Alkaline, 10-15 hours dependent on back light			
External power	9-14V DC at 150mA			
Weight	332g including batteries			
Size	230x72x31mm inc preamp and microphone			
Resolution	0.1dB			
Measured Parameters				
Broadband	LXY, LXYmax, LXYmin, LXeq, LXpeak, Lavg, LC-LA, LXleq, LTM3, LTM5, LAE. Workplace dose values are calculated within insight software			
Octaves and 1/3 octaves	LXY, LXeq, LXYmax, 5x Ln% (on CEL-633). Where X is the frequency weighting A, C or Z and Y represents time weighting Fast (F), Slow (S) or Impulse (I). All weightings simultaneously measured where appropriate			
CEL-633 model additionally stores 5x Ln values in broadband and octave modes. For time history data, all parameters are logged for period times plus 6 selectable profile parameters (plus 5x Ln values on CEL-633).				
Memory	Memory: 2GB (>1 year logging when set to 1 second interval, 999 runs). All parameters stored and accessible via Casella insight. Total measurement runs: 999. Events: 999 events/run. 10 hours of audio recording in high quality mode, 60 hours in low quality mode. For long term unattended monitoring the CEL-630 takes a new run daily for up to a total of 400 days.			
Audio recording	Low Quality: 8,000 samples/s @ 8bit (64kb/s), up to 4kHz High Quality: 24,000 samples/s @ 8 bit (192kb/s), up to 12kHz			
Environmental - Operating 0 to 90%RH in the absence of condensation				
Conditions	Temperature of -10 to +50°C (Class 1) and 0 to 40°C (Class 2) Atmospheric pressure of 65 to 108kPa. Storage from -20 to 60°C			
Languages	User interface can be changed via the menu: English, French, German, Spanish, Italian, Portuguese, Chinese.			
Instrument Kits				
Kits can be tailor made which include kit case, sound level meter, microphone extension cable, acoustic calibrator, windshield, tripod, dot matrix / thermal printer, cables, insight software and calibration certificates, user manual.				
CEL-6840	Standard kit case*	PC18	Universal power supply	* included with instrument ** included with instrument kit (with CEL-63XY/K1 where 'X' and 'Y' represent the model numbers)
196030C	Executive kit case**	CMC51	USB download cable*	
CEL-251	Microphone Class 1*	CEL-6718	Lightweight tripod	
CEL-252	Microphone Class 2*	CMC73	Portable printer kit (fits in 196030 kit case)	
CEL-120/1	Acoustic Calibrator Class 1**	MIC1	High range microphone (to 165dB)	
CEL-120/2	Acoustic Calibrator Class 2**	MPA1	High range microphone adaptor (for use with MIC1)	