

ACOUSTIC RECORDER LIMITER LCA-02

- Pressure Level limiter based on the measurement of SPL
- 30 dB correction range (attenuation)
- It registers acoustical parameters like L_{Aeq} , $L_{Aeq1'_{max}}$, L_{Fmax}
- It registers all the occurred incidents: Disconnection from the mains, Sensor tampering
- It can be completely sealed
- Adaptable to any kind of regulation
- Internal Battery
- Data retrieval by LCD Screen, printer, serial connection with PC and modem.

The acoustic controller and limiter **LCA-02** consists of an integrating averageing sensor and a linear attenuator. The sensor measures sound pressure level in the room and the attenuator acts correcting the electrical signal level at the power amplifier input to make the sound pressure level not to exceed the programmed limit.

The attenuator can correct up to 30 dB. If the necessary attenuation exceeds the 30 dB, the **LCA-02** penalises with 60 dB of attenuation during a programmable period.

Also, the **LCA-02** has a detailed control of the sound pressure level (L_{Aeq1h} , $F_{ast_{max}}$ and $L_{Aeq1'_{max}}$ Of the hour) and incidences produced during the last 60 days.

The **LCA-02** permits a double timetable with different sound pressure level limits: "running time" and "night timetable". The "running time" is the establishment timetable, since it opens until it closes and it has a sound pressure limit. The "night timetable" is in the "running time" and it also has a sound pressure level limit, (lower than the "running time" one). Whenever the **LCA-02** is out of the running time, it attenuates 60dB.

It also permits to program "non-working days". In these days, the maximum sound pressure level can be exceeded without penalisation and incidence annotations.

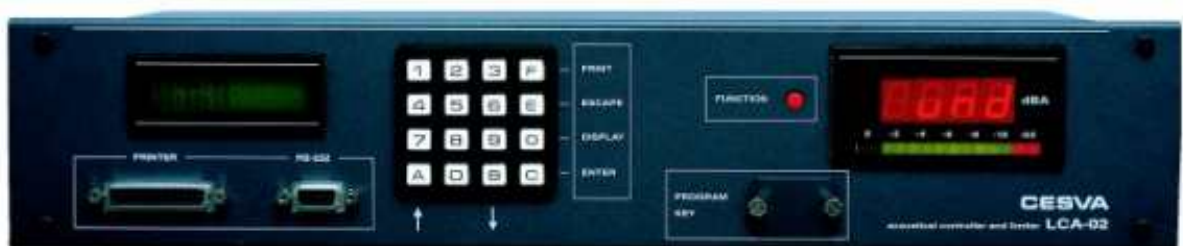
The led display shows the continuous equivalent sound pressure level with A weighting (L_{Aeq}), in decibels (dBA). There is a led bar below that indicates the attenuation with 2 dB increments.

The LCD is used to program the **LCA-02** and to show the occurred incidences. It normally indicates date, time and if it is a non-working day or it is in night timetable.

If the **LCA-02** is disconnected from supply, it continues working thanks to an internal battery, but with a fixed attenuation of 60 dB. The autonomy of the battery is two days. When it runs out, the **LCA-02** turns off automatically and maintains all the information until the next connection. The **LCA-02** memorises when the running out of battery happens and keeps the last 7 times it has occurred.

With a parallel printer you can print incidences summaries and graphics with the evolution of the sound pressure level.

It is possible to connect an external display with a led display and a led bar to permit to the person that controls the volume to see it.



Technical Specifications

Acoustic Recorder Limiter LCA-02

INPUTS AND OUTPUTS

Audio Inputs and Outputs

Asymmetrical E/S Connectors (non-balanced):

RCA

Symmetrical E/S Connectors (balanced):

Input: XLR female

Output: XLR male

Input impedance:

50 k Ω

Output impedance:

100 Ω

Minimum output charge:

10 k Ω

Total harmonic distortion (THD):

< 80 dB

Frequency response (± 0.5 dB)

20 to 20 kHz

Typical noise (20 – 20,000 Hz):

Balanced: 180 μ V

Non-Balanced: 130 μ V

DL-2E external display connection output

XLR with 3 contacts (male)

Modem connection output

DB-9 plug (male)

RS-232 serial connection output

DB-9 socket (female)

Connection with parallel printer output

DB-25 socket (female)

ATTENUATOR

Range of attenuation:

0 – 30 dB

Penalisation attenuation:

60 dB

SUPPLIED ACCESSORIES

- Sensor LXM-9
- Cable CNOMX9

SENSOR

Measurement range:

60 – 120 dB

Frequency range:

20 – 20,000 Hz

FUNCTION

Averaging time: 1 s

Frequency Weighting: A

DISPLAY

LED display (1s)

Programmable: 2 seconds, 10 seconds, 1 minute and N minutes (1<N<60).

DIMENSIONS and WEIGHT

440x 226x 95 mm

2 units 19" rack

9 kg

BATTERY FEED

220 V – 50-60 Hz

MAXIMUM CONSUMPTION

25 W

STORAGE CAPACITY

60 days

CESVA *instruments, s.l.* reserves the right to change specifications and accessories without notice.

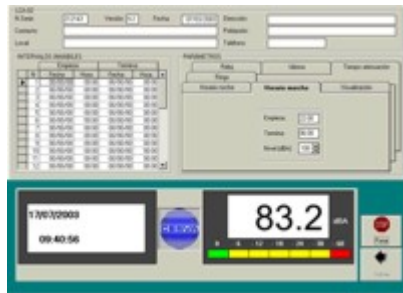
OPTIONAL ACCESSORIES

CB-5	Sound Calibrator
DL-2E	External Display
SFTL02	Software for PC
CNOMX9	Connection Cable sensor-limiter 9 m
ALIC-1	Pincers to seal
PLOM-1	Lead seal of \varnothing 9 mm (1kg)
ALAMB-1	wire to seal (50 m roll)

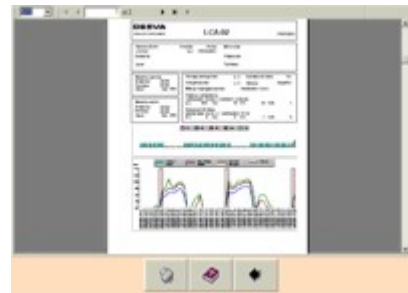
Software Windows® 9x/Me/2000/NT/XP For LCA-02

The **LCA-02** is supplied with the software application that allows you to:

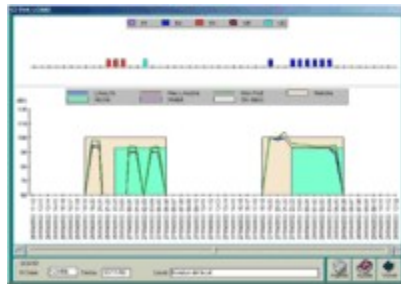
- Detailed report of the sound levels and the incidences
- Just one screen to program all the parameters
- Creates reports in 6 different language
- Create graphics



Real time data acquisition by modem



Generate a report



*Graphical display of data
(sound levels and incidences)*



*Numerical display of register data
(LeqT and sessions registers)*

INTERVALS INHABILES

N	Empieza:		Termina:	
	Fecha	Hora	Fecha	Hora
1	31/12/02	23:00	31/12/03	13:00
2	22/02/03	20:00	23/02/03	09:00
3	00/00/00	00:00	00/00/00	00:00
4	00/00/00	00:00	00/00/00	00:00
5	00/00/00	00:00	00/00/00	00:00
6	00/00/00	00:00	00/00/00	00:00
7	00/00/00	00:00	00/00/00	00:00
8	00/00/00	00:00	00/00/00	00:00
9	00/00/00	00:00	00/00/00	00:00
10	00/00/00	00:00	00/00/00	00:00
11	00/00/00	00:00	00/00/00	00:00
12	00/00/00	00:00	00/00/00	00:00
13	00/00/00	00:00	00/00/00	00:00
14	00/00/00	00:00	00/00/00	00:00
15	00/00/00	00:00	00/00/00	00:00

Program the LCA-02



Language configuration