

Main Characteristics

- **Frequency-Filter Sound Pressure Level limiter based on the measurement of SPL**
- **Control by emission Sound Pressure Level**
- **40 dB correction range (attenuation)**
- **Registers acoustical parameters like LAeq, LAeq1'max, LAeq1'min, LFmax, LSmax and percentiles (interval and sessions)**
- **Registers all incidents, e.g. disconnection from the mains or sensor tampering**
- **Can be completely sealed**
- **Adaptable to any kind of regulation**
- **Internal Battery**
- **Data retrieval by LCD screen, printer, serial connection with PC and modem.**
- **Massive data storage for periods longer than 1 month**

The logger-limiter LRS-03 measures records and limits the sound pressure level at the site where it is installed. The LRS-03 is inserted into the reproduction chain, between the mixing desk and the crossover, intervening in the entire sound chain.

The LRS-03 corrects the signal that feeds the amplifier so that the sound pressure level measured by the sensor does not exceed the programmed maximum level. The LRS-03 automatically corrects excesses of the sound signal level up to 40 dB. If this 40 dB is exceeded, then the LRS-03 penalises with an attenuation of 60 dB during a programmable period of time.

The LRS-03 is also equipped with a recording function that allows the user to store information concerning sound levels measured in the establishment and concerning incidents that occur, (tampering with the equipment), during a minimum period of one month. The LRS-03 allows you to programme the periodicity of information storage (from 2 min. to 1 h. in 1-min. steps). The information for each session is also stored, allowing you to demonstrate the sound levels generated by your activity to the authorities. The information stored can be consulted in various ways: displaying it on the LCD screen or printing it by connecting a parallel printer to the corresponding LRS-03's output port. The information can also be transferred to a PC via a serial port or modem.

The LRS-03 allows the programming of different schedules for daytime and for night-time evaluation and the maximum levels allowed for each schedule. The LRS-03 also allows you to enter different working schedules, (session schedules), for each day of the week and can fit any kind of establishment.

The LRS-03 has an internal battery that allows it to keep on working when the power is disconnected. When the LRS-03 works with the battery, it attenuates 60 dB. The battery lasts two days. Before the battery runs flat, the LRS-03 records the date and time when this happens. It keeps a database with the last 10 times the battery has gone flat. When the battery is flat, the LRS-03 continues attenuating 60 dB until the LRS-03 is connected again to the mains. All the information is kept in the memory and is not lost. Once the LRS-03 is connected again to the mains it continues running normally.

An illuminated external display can be connected to the LRS-03. This allows you to consult the sound pressure level measured and the attenuation applied by the LRS-03 in real time from another point in the room.



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:
100 k Ω

Output impedance:
100 Ω

Minimum output charge:
47 k Ω

Total harmonic distortion (THD):
< 80 dB

Absolute maximum input level:
 ± 18 V

Maximum input level without distortion:
 ± 14 V

Frequency response (± 0.5 dB):
20 to 20.000 Hz

Typical noise (20 – 20,000 Hz):
Balanced: 180 μ V
Non-Balanced: 130 μ V

DL-3E 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 – 40 dB

Penalisation attenuation:
60 dB

Typical attenuation error:
0 dB

Maximum attenuation error (0 - 40 dB):
1 dB

SUPPLIED ACCESSORIES

LXM-8 Sensor
CNOMX9 Cable sensor-limiter
SFTL03 Software for PC

Sensor

Measurement range:
60 – 120 dB

Frequency range:
20 - 20.000 Hz

DISPLAY

LCD Display

Backlit with 20 x 4 characters

External Display (Optional)

DL-3E external LEDs display: indicates, in real time, the sound pressure level in dBA and the LRS-03 attenuation in dB. The display updates every 2 seconds.

Dimensions and weight

440x 226x 95 mm
2 units 19" de rack
9 kg

Mains feed

220 V — 50-60 Hz

Battery feed

With automatic recharge

Minimum battery duration: 36 h

Maximum consumption

25W

Storage capacity (It can be increased)

10 days (TLeq = 2 min)
34 days (TLeq = 7 min)
48 days (TLeq = 10 min)
9 months (TLeq = 1 h)

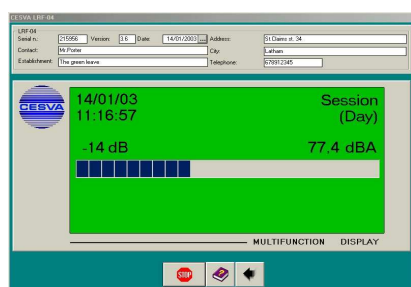
OPTIONAL ACCESSORIES

CB004 Class 2 acoustic calibrator
DL-3E External Display
DL100 Giant External Display
ALIC-1 Sealing Pincers
PLOM-1 Lead seal of $\varnothing 9$ mm (1kg)
ALAMB-1 Sealing Wire (50 m roll)

The characteristics, technical specifications and accessories may vary without prior notice

The LRS-03 is supplied with the software application that allows you to:

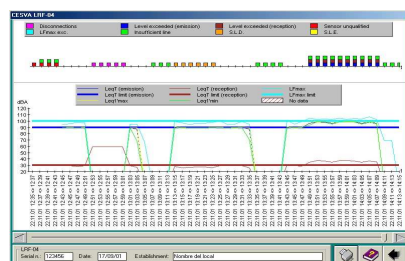
- Choose the display interval
- Generate graphics. Time history of the sound levels.
- Obtain data in electronic format.
- Programme all the parameters on just one screen.
- Creates reports in 5 different language.



Real time data acquisition by modem



Generation of reports



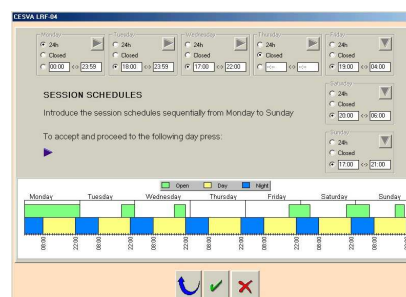
Graphical display of data (sound levels and incidences)



Numerical display of register data (LeqT and sessions registers)



Programming the LRS-03



Session schedule

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