

# LC-2500 LEAK NOISE CORRELATOR



## KEY FEATURES

- 1 Main Processor Unit
- 2 LCD Screen & Control Panel
- 3 Blue Pre-Amp w/radio communication
- 4 Red Pre-Amp w/radio communication
- 5 Small sensors for metal pipes

## FEATURES

- Main Processor Unit with 24 bits digital signal processor, for much faster correlations.
- New LC-2500 high sensitivity sensors with strong magnets and 100dB dynamic range.
- Powerful transmitter radios, with 500 mWatts output to send signals up to 3,000 feet.
- Large LCD Display, provides superior visibility in both direct sunlight and dark environments.
- Compact and lightweight, less than 7 pounds, can easily be carried all day.
- Main processor unit & transmitters can operate in rain storms, sub-zero temperatures and direct sun for hours.
- The new LC-2500 sensors are very sensitive, small in diameter, and totally submersible.
- Runs all day on standard or rechargeable "D" batteries.
- Input pipe materials, diameters, and lengths by simply selecting them in the program menus. The automatic functions can do the rest.
- Blue Pre-amp/Transmitter and Red Pre-amp/Transmitter "hear" the leak sounds at two pipe locations and transmit them separately to the main processor unit.
- 2 Hard ABS plastic carrying cases included.

### Optional Accessories:

- Two red sensors for PVC Pipes, "Poly" services, and large diameter mains
- LC-2500 Windows™ PC software (downloadable)

## SPECIFICATIONS

### MAIN PROCESSOR UNIT

- Operating temperature range: -10 to 50°C
- Applicable standard: IP52 (weather tight)
- External dimensions: 7.8" w X 9.9" h X 4" d
- Weight: Approx. 6.8 lb. (with batteries)
- Battery: 4 "D" Cells (std or rechargeable)
- Continuous Operating Time: 13 hours minimum (at 20°C, backlight OFF)
- Minimum Operating Voltage: 4.2V
- Input: Radio or Cable
- Display: Dot matrix LCD
- Operation: Polarity correlation
- Td Range: 650ms, 6100ms, d200ms, 6400ms, 6800ms, 61600ms or automatic setting
- Time Resolution: 25 ms (in 650ms range), 50 µs (in 6100ms range), 100 ms (in 6200ms range), 200 µs (in 6400ms range), 400 ms (in 6800ms range), 800 µs (in 61600ms range)
- Filter Range: THRU, 80Hz to 5,000Hz (4 low and 4 high)
- Notch filter: OFF, 50Hz, 60Hz
- Auto Filter: Automatically selected from FFT operation
- Data Memory: 100 correlations
- FFT Monitor: 1kHz, 2.5kHz, 5kHz (common to both channels)
- Sound memory: For 16 seconds
- External Interface: RS-232C



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# LC-2500 LEAK NOISE CORRELATOR



High sensitivity, small diameter  
LC-2500 Sensors standard for metal  
pipes and A/C mains



Low Frequency Red Sensors  
for PVC pipes, "poly" services, and  
large mains. (optional)



David Clark 100 d/c  
aviation-grade stereo  
headphones (included).

## FEATURES

### SETUP AND FUNCTIONS

- **Main Menu:**  
Is the "home page" where every correlation begins. Icons in the upper left corner tell battery power, headphones selection, transmitters received, and RUN status. Press the 2 key to start the correlation.
- **Status Setup:**  
Choose either the manual or automatic modes for the time delay (Td) range and the filters. In AUTO, the Td range automatically adjusts for all different pipe lengths and materials. In FILTER SETUP, select the high, low, and "notch" filters.
- **Pipe Data Input:**  
Choose the pipe material, diameter, and length for every section of pipe between the two sensors. Up to six pipe sections can be entered (always in order from the "Blue" sensor to the "Red" sensor).
- **FFT Analysis:**  
The user can examine the sound signals from both sensors from 0 to 5000 Hz. The FFT function can automatically select the high and low filters if AUTO is chosen in FILTER SETUP.
- **Correlation:**  
The correlation "picture" indicates whether the leak sounds are clearly heard at both sensors. The distance to the leak and the filter settings are displayed.



Main Processor Unit  
Correlation Screen

## SPECIFICATIONS

### RED AND BLUE PRE-AMPLIFIERS

- Operating temperature range: -10 to 50°C
- Applicable standard: IP52 (weather tight)
- External dimensions: 5.9" w X 14.5" h X 4.3" d
- Weight: Approx. 6.3 lb. (with batteries)
- Battery: 6 "D" Cells (std or rechargeable)
- Continuous Operating Time: 10 hours minimum (at 20°C, backlight OFF)
- Minimum Operating Voltage: 6V
- Input:
  - Input Frequency Range: 20Hz to 5kHz (at THRU filter setting)  
100Hz to 5KHz (at STD filter setting)
  - Input Sensitivity: 50 micro V, max.
  - Signal to Noise Ratio: 35dB, min.
- Radio communication System
  - Output Frequency: UHF under approved freq.
  - Modulation: Direct frequency modulation
  - Output Power: 0.5W (500mW)
  - Output Impedance: 50- $\Omega$

### SENSORS

- Type: Piezoelectric pick-up
- Voltage Sensitivity: 2.5V/g (peak)
- Applicable Standard: IP68 (water-proof)
- Drop Resistance: 3 feet (asphalt)
- External Dimensions: 1.2" diameter x 5.1" high
- Weight: 15 ounces each
- Power Supply System: 3-wire
- Output Impedance: 100V, max.
- Power Supply Voltage: 5.0V



### Includes:

- 2 ABS custom cases
- Instruction manual



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