



**SubSurface Leak
Detection, Inc.**

**MODEL LC-2500
LEAK NOISE CORRELATOR**





Main Processor Unit with 24 bits digital signal processor (DSP) for much faster correlations



New LC-2500 high sensitivity sensors with strong magnets and 100 dB dynamic range



Powerful transmitter radios with 500 mWatts output to send signals 3000 ft.



Large LCD Display readable in very cold and hot temperatures

The LC-2500 Leak Noise Correlator

Compact and Light-Weight

The Main Processor Unit, weighing less than 7 lb., can easily be carried all day.

Ruggedly Built and Weather-Tight

The Main Processor Unit and the Pre-Amps/Transmitters can operate in rain storms, sub-zero temps., and direct sun for hours.

High Sensitivity Sensors Standard

The new LC-2500 sensors are very sensitive, small in diameter, and totally submersible.

No Built-In Rechargeables

Runs all day on standard or rechargeable "D" batteries.

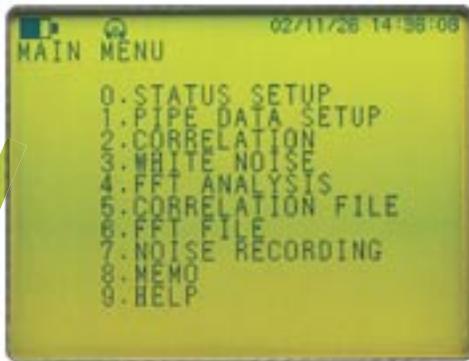
Easy to Set Up and Run

Input pipe materials, diameters, and lengths by simply selecting them in the program menus. The automatic functions can do the rest.

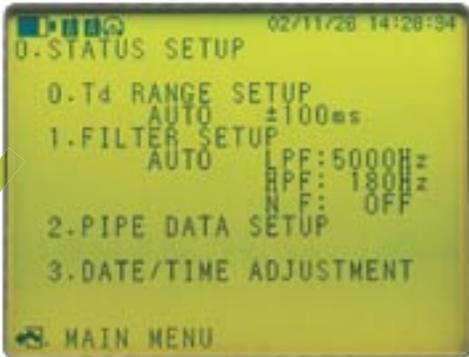


The Main Processor Unit displays the correlation "picture" and the distances to the leak from the Red pre-amp transmitter and the Blue pre-amp transmitter.

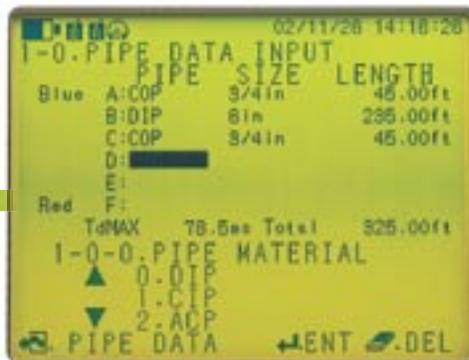
Easy to Set Up and Run



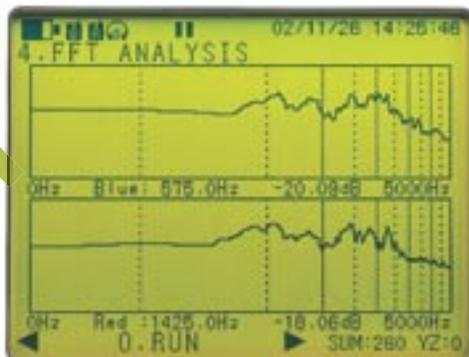
MAIN MENU is the “home page” where every correlation begins. Icons in the upper left corner tell battery power, headphones selection, transmitters received, and RUN status. Press the 2 key to start the correlation.



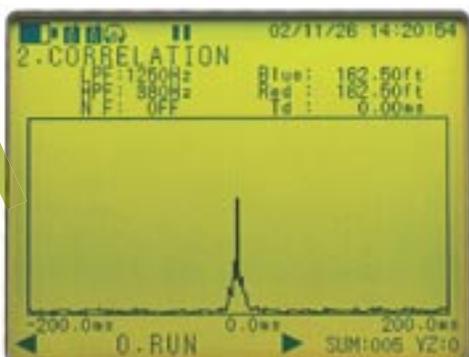
In **STATUS SETUP**, choose either the manual or automatic modes for the time delay (Td) range and the filters. In AUTO, the Td range automatically adjusts for all different pipe lengths and materials. In FILTER SETUP, select the high, low, and “notch” filters.



In **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).



In **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.



In **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.

Powerful Transmitters with Radios That Go Over Hills and Around Buildings



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.



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

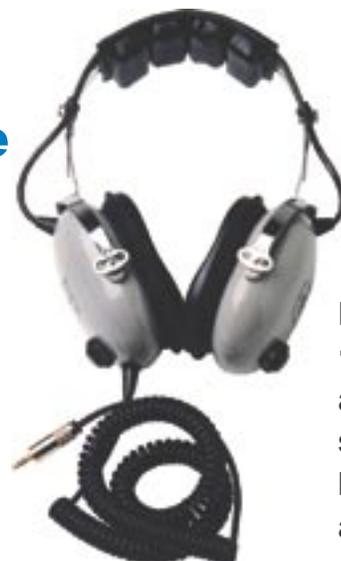


Low Frequency Red Sensors for PVC pipes, “poly” services, and large mains.



Patented Submersible Sensors

The LC-2500 PC Software lets the user download correlations to any PC computer for reports, archives.



David Clark 100 d/C aviation-grade stereo headphones are standard.

MODEL LC-2500 LEAK NOISE CORRELATOR



The LC-2500 System Includes:

- ① LC-2500 Main Processor Unit
- ② Blue Pre-Amplifier with Radio Communication
- ③ Red Pre-Amplifier with Radio Communication
- ④ Two High Sensitivity, Small Diameter Sensors for Metal Pipes
- ⑤ Aviation-Grade Headphones (see inside)
- ⑥ Instruction Manual and Field Guide (not shown)
- ⑦ Two "Heavy Duty" Plastic Carrying Cases

Specifications

Main Processor Unit

- Operating Temperature Range : -10 to 50°C
- Applicable Standard : IP52 (weather tight)
- External Dimensions : 7.8 inches (W) x 4.0 inches (D) x 9.9 inches (H)
- 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 : ±50ms, ±100ms, ±200ms, ±400ms, ±800ms, ±1600ms or automatic setting
- Time Resolution : 25 μs (in ±50ms range), 50 μs (in ±100ms range), 100 μs (in ±200ms range), 200 μs (in ±400ms range), 400 μs (in ±800ms range), 800 μs (in ±1600ms 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

Optional Accessories:

- ⑧ Two Red Sensors for PVC Pipes, "Poly" Services, and Large Diameter Mains (see inside)
- ⑨ LC-2500 Windows™ PC Software (for downloading)

Specifications:

Red and Blue Pre-Amplifiers

- Operating Temperature Range : -10 to 50°C
- Applicable Standard : IP52 (weather tight)
- External Dimensions : 5.9 inches (W) x 4.3 inches (D) x 14.5 inches (H)
- 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 : 6.0V
- 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 : 50Ω

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 inches diameter x 5.1 inches high
- Weight : 15 ounces each
- Power Supply System : 3-wire
- Output Impedance : 100Ω, max.
- Power Supply Voltage : 5.0V

Manufactured by:



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Detection, Inc.**

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