

LOG3000 BT

High-performance laptop/tablet correlator – Simple operation –
Highly sensitive VIBROPHONS – Excellent measurement results



LOG3000 BT – High sensitivity correlation technology

LOG3000 BT is a mobile correlator which pinpoints the location of leaks in pressurized water pipes. It can be used on all pipe materials: steel, cast / ductile iron, plastic and cement. Measurement results are concisely displayed on either a laptop or tablet and provide information necessary for unearthing and repairing damaged pipelines. It can also be used for preventative inspection of pipe sections and to identify unauthorized connections. Special functions such as surface correlating, displaying correlation characteristics in a histogram graph and automatically referencing lateral sound velocity factors offer additional benefits.

Laptop or tablet

vonRoll hydro-designed technology allows leak noise data to be transmitted from the sensors and receiver to the included laptop or tablet in real-time via Bluetooth® connection. The system offers additional advantages including:

- Recording leak noises on WAV files
- Creating measurement reports in BMP image format
- Ability to instantly send results

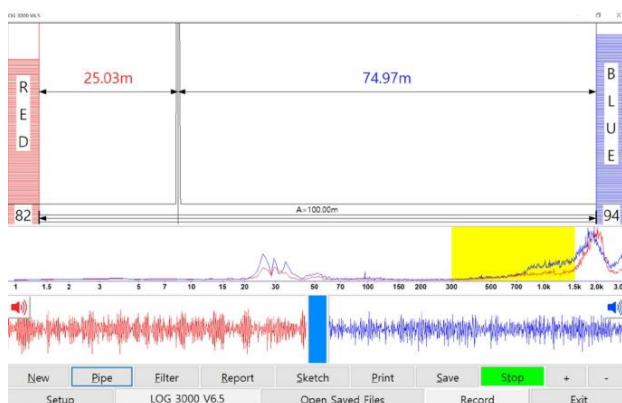
Thanks to the low processing power required for LOG3000 BT software, the laptop or tablet can also run other applications while in the field (e.g., INFRAPORT, maintenance lists, installation plans, etc.). Either can also be used for standard office applications.

Software

The intuitive LOG3000 BT software serves as the main interface for the system. Once opened, the user is prompted for all necessary parameters. Correlation results are then displayed immediately. Ongoing measurements continue, however, allowing continuous analysis. The software can differentiate leak noises from those caused by external sources such as traffic or heavy machinery.

Pipe Menu

Users select parameters such as pipe material, diameter and length from pull down tabs in the Pipe Menu. Once these are set, the software determines the correct sound velocity.



Filter Menu

The frequency spectrum in the Main Menu gives information on the acoustic correlation signals. Depending on the situation, default settings for the pipe material chosen can be selected from the Filter Menu. The user also has the option to customize filters.

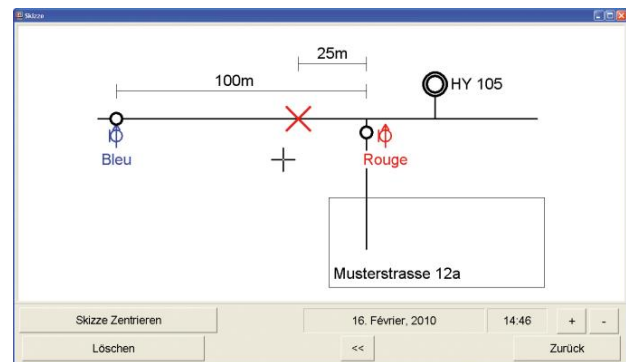
The screenshot shows the Filter Menu interface. It features a table for selecting pipe material, diameter, and sound velocity. Below the table, there are settings for Gain, Threshold %, Frequency Ranges, Sampling k, Width, Filter Selection (Passes, Hum), and Avg of Cycles.

Length m	Material	Diameter	Sound m/s
A 100.00	Cast Iron	100	1293
B 0.00	Steel	100	1293
C 0.00	Cast Iron	100	1293
D 0.00	Ductile Iron	100	1293
E 0.00	Asb. Cement	100	1293
	Lead	100	1293
	PE	100	1293
	PVC	100	1293
	Concrete	100	1293

Gain: 100, Threshold %: 70, Frequency Ranges: 300->2259, Sampling k: 128, Width: 1.00 m, Filter Selection: Passes: 2, Hum: 0, Avg of Cycles: 5, 5

Report Menu

Once a leak has been located, measurement details are displayed and stored in the Reports Menu. The laptop or tablet camera can also be used for support documentation.



Hardware

The LOG3000 BT components are durable, compact and dependable.



VIBROPHON

VIBROPHON is a sensitive listening device capable of detecting leak noises even in environments with low sound propagation, such as plastic pipe.

Utilizing a magnetic coupler, VIBROPHON is easily installed in any field condition and is resistant to electromagnetic interference and magnetic fields. It is rugged, waterproof (IP68 rating) and can be used in temperatures ranging from -31°F / -35°C to +212°F / 100°C. Separate VIBROPHONS connect to the red and blue transmitters with 5-foot cables. Extended cables are available for deeper utility access holes.



Receiver

Radio signals are sent by antenna from both red and blue transmitters to the receiver. The receiver then transmits the signals to the laptop or tablet via USB cable or Bluetooth® connection. The receiver is powered by a standard lithium battery and can be used continuously for up to 12 hours.

Because of its sophisticated functionality, the highest and lowest leak noises can be transmitted. It is then possible to listen to audio directly on the laptop or tablet.



Transmitters

The red and blue transmitters amplify the signals measured by the VIBROPHONS and transmit them over the 433 MHz radio band to the receiver. These devices select filter settings automatically. Each transmitter operates on an NiMH battery, allowing continuous operation all day long.

The LOG3000 BT correlator is a state-of-the-art device which provides quick and efficient leak detection. Water professionals around the world consider it their primary piece of equipment for early detection, allowing cost savings through enhanced water system reliability.

