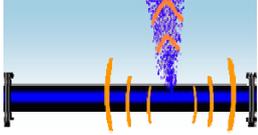


SeCorrPhon AC06 | portable correlator & "fully loaded" ground microphone

What is correlation?

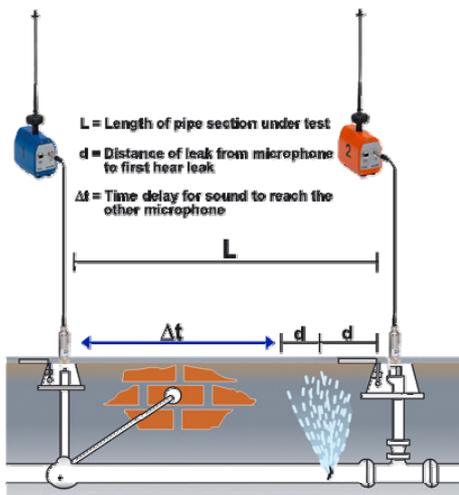


Correlation is a method for finding and pinpointing leaks in pipes.

A leak in a pipe under pressure creates noise that travels along the pipe, its contents, and through the surrounding ground.

When two highly sensitive microphones are attached to a pipe with a leak the sound from the leak takes longer to travel to the microphone furthest from the leak, the "time delay" or Δt .

Utilising this and other known information (pipe diameter, material and length), the exact leak position can be automatically calculated by the correlator SeCorrPhon[®] AC06



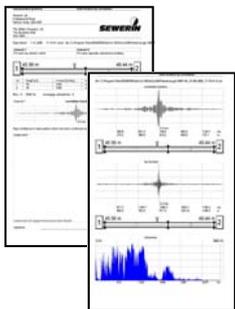
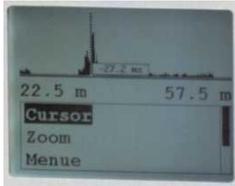
Precise leak location with digital signal processing

The leak sounds are transmitted to the lightweight ergonomically designed central processing unit SeCorrPhon[®] AC06 via two powerful 500 mW radio transmitters. The sounds are swiftly analysed and the leak position displayed.



- Quick, easy to use intuitive operation sequence (can be operated by one hand)
- Input data via Jog dial and / or water resistant film pad – can be used wearing gloves
- Unwanted noise suppression: - Ignores interfering noises concentrates only on the leak noise
- Digital Signal Processor (DSP): - provides fast accurate calculations ensuring quicker leak location
- Fast Fourier Transformation (FFT) correlation: – precise fast location even with the most challenging leaks
- High resolution 320 x 240 pixel display – Clear representation of leaks, even in bright sunlight. Automatic contrast change.

SeCorrPhon central processor



- Highest Peak: - (likely leak position) automatically displayed
- Cursor position selectable: - other noises can be highlighted or ignored
- Frequency filter – automatic or manual setting of frequency filters for difficult to locate leaks (very beneficial on plastic pipes)
- Advanced menu : - Professional features normally found only on PC correlators available for times that you need to use their advantages and out of the way when you do not
- Memory - 25 tests can be stored at high resolution for post test analysis and uploading to a PC. 50 tests can be stored at low resolution
- E-mail test results for assistance or comment. Software produces customer reports including: address, operator, leak location, material, coherence, correlation and a pictorial representation of the leak
- Back lit illumination: - Bright clear visibility for night work
- Leak noise sound can be stored to listen to for later comment
- Zoom function on display: - Easy use of the filtering function. Gives added clarity to more difficult results
- Listen whilst correlating :- listen to the noise from each microphone during and before correlation. You can listen to both or each microphone separately. This lets you know you the noise level on the pipe and allows you decide which sensor the leak is nearest or if there is user draw off, pressure reducing valves etc.

Radio transmitters and piezo accelerometers



- Lightweight radio transmitters which can easily be carried in one hand by the antenna carrying buttons
- Automatic on/off when the microphone is plugged in/out - no danger of running the battery flat by mistake, quick start saves time
- Automatic amplification level selected when microphones are connected
- In built low pass frequency filter - for non metallic pipes; it highlights and emphasises sounds in the range 0-300Hz
- 50Hz notch filter - no interference from electricity cables
- In the event of accidental damage to a radio transmitter *either* microphone can be directly connected to the SeCorrPhon AC06 allowing you to carry on working without interruption

Hydrophones



Standard piezo accelerometers listen to the leak noise on the surface of the pipe. Hydrophones are attached directly into the water column normally via hydrants. Leak noise can be heard far more successfully, over several hundred metres. They are particularly useful on plastic pipes and trunk mains where the leak noises frequency is likely to be lower than cast and steel pipes

A ground and valve microphone as well as a correlator



After correlation the indicated position should be checked by top sounding. With other correlators this means having to purchase a separate ground microphone - not so with the SeCorrPhon AC06. When used with the optional tripod foot the SeCorrPhon AC06 offers all the same functions as our Aquaphon ground microphone

- **Minimum Noise Level:** -The noise from a leak is constant; it does not get quieter or louder, however, traffic and wind noise does. The SeCorrPhon ignores these interfering transient noises digitally displaying only the “quietest” moment. this value is stored and displayed - Are you closer or further away from the leak in the current listening position compared to the last? Is the leak sound getting louder or quieter? The higher the number on the display the closer to the leak you are.
- **Dynamic Hearing Protection:** - with normal acoustic detection instruments a painful and sometimes dangerous noise is heard when the test rod slips from the contact point, or something thumps close to the microphone. The SeCorrPhon AC06 has a novel technology to eliminate this danger. When a very loud noise is picked up the sound in the headphones is immediately muffled. If the sound increases even further, the headphones are cut off .
- **Frequency filters:** - We do not all hear best at the same frequencies; leaks do not all produce noise at the same frequency. Interfering noises make listening at certain frequencies very difficult. The SeCorrPhon AC06 has a number of ways to assist with all these problems...
- **Suit yourself:** - Apply your own choice of frequency filters. You can listen to the best frequency range to suit the leak noise being listened to, your hearing and to eliminate interfering noises.
- **Let the SeCorrPhon AC06 help:** - **Filter-optimisation** makes it easier to detect leaks even when the sound is very muffled. When activated the receiver takes a noise sample and selects the optimum frequency range making the sound of the leak particularly clear . This can greatly assist those with less experience



Carrying and charging

- The receiver and radio transmitters can all be charged in the closed case doing away with the nuisance of having multiple component parts plugged into various sockets around your office.
- Charging can also be carried out in your car or van with the 12V cigar lighter



Specification

- Display 320 x 240 pixels with bright background LED illumination
- PC connection for information download
- Socket for direct connection of a variety of microphones
- Built in NiMH rechargeable batteries and 12V socket for mains or vehicle charging. Approx. 8 hours use
- Operating/storage temperature: -10 °C ... +40 °C / -20 °C ... +60 °C
- Light for night work
- Protection class: IP 54
- Weight: approx. 1.3 kg
- Dimensions (W x H x D): approx. 12.5 x 18 x 6.5 cm

