Aquaphon A200 | Wireless Ground Mic for electroacoustic leak location

Theory of acoustic water leak location

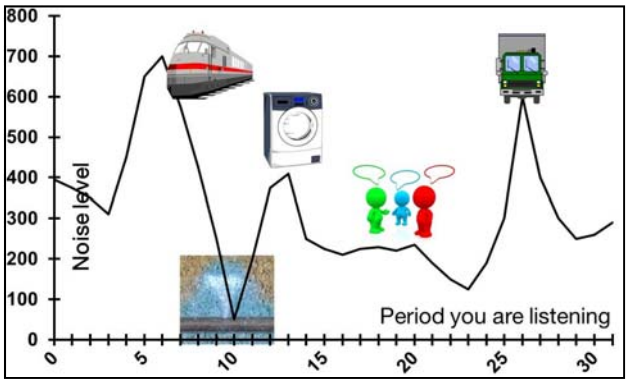
When a pressurised water pipe is damaged water leaks out at high speed which causes the pipe and soil to vibrate at the exit point. This vibration, (sound), is transmitted by the pipe, and surrounding material. The Aquaphon A200 amplifies these noises allowing the leak location to be pinpointed.

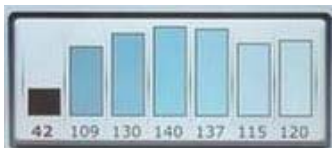
Features

- Digital wireless headphones
- Colour touch screen
- Dynamic Hearing Protection- Protects the user's hearing
- On screen application guidance
- Digital wireless microphones (wired, UM200)
- Digital sound recorder with memory graph and FPF- Fast Playback Function
- Dynamic frequency filtering with touch screen filtering graph
- TM200 and UM200 mics have LEDs to illuminate valve chambers.

MNL - Minimum Noise Level

A leak noise volume is constant; it does not get significantly quieter or louder, unlike the constantly fluctuating noise from traffic, washing machines, or people talking. The Aquaphon A200 displays the constantly changing noise level as a dynamic graph, but more importantly, it locks onto and numerically displays the "quietest" moment during the time you have been listening; it is the large number in the centre of the display. The higher the value displayed the closer to the leak you are, (assuming that you are listening to the leak!)





Memory Graph:

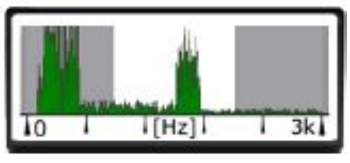
Previous Minimum Noise Level are recorded and stored. Are you closer or further away from the leak in the current listening position compared to previously? Is the leak sound getting louder or quieter? The higher the number shown on the graph the louder the noise was in that location.

FPF - Fast Playback Function

When carrying out water leak location low frequency sounds are often difficult to hear; these lower frequencies can be useful to assist in narrowing down a leak's position. The audio recorder and records leak sounds; simply by touching the relevant bar graph it can be played back at either normal speed or at a faster speed. When played back at faster speed it has the effect of making all frequencies sound higher, making the leak's position easier to pinpoint.

Frequency Filtering with graph

A graph showing the strength, (volume), of the frequencies of the sound being heard is displayed. This allows the user to see which frequencies are the strongest . Higher frequencies tend to occur closer to the leak.



- By simply tapping on the screen frequencies can be isolated and silenced allowing the user to focus on listening only to the frequencies that matter
- An automatic frequency filter can also be set. The A200 will analyse and suggest optimum filters

DHP - Dynamic Hearing Protection

The Dynamic Hearing Protection function constantly monitors the microphone's noise level. Should there be a sudden increase in sound the headphones are muted to protect your hearing.

- The Headphones are digital and wireless giving you completely free movement.
- Utilising a digital high frequency transmission path (SDR technology) there is no interference from any other radio transmitters

Wireless Digital Microphones for all surfaces

TS 200 Carrying Rod

The TS 200 is the building block of the microphone choices. The TS 200 is a wireless transmitter to which different microphones can be attached. The TS 200 transmits the sounds picked up by the microphone via digital wireless SDR technology. This allows the user complete freedom of movement

Prelocation of Water Leaks Microphone - TM 200

Pre location of leaks is carried out using the TS 200 with the TM 200 test rod mic (listening stick) a highly sensitive wire free digital microphone for listening for water leaks at valves and hydrants. When you find a fitting with constant leak noise you know you are close to the leak.

- The TM 200 includes an LED to illuminate the valve chamber allowing quicker cleaner contact with the spindle.

Pinpointing water leaks on pavements and level surfaces - BM 200 Microphone

When the section of pipeline with the leak has been identified, or if you choose to walk the surface of the pipe to find the water leak, pin pointing can be carried out on smooth surfaces (tarmac concrete and block paving) using the uniquely wind insulated ground microphone BM 200.

- It is a digital wireless microphone that can be operated from the receiver , "hands free", or from the carrying handle.

Pinpointing water leaks on uneven surfaces - BM 230 Microphone

On uneven or off road surfaces the BM 230 complete with its removable ground spike, is the perfect choice; its tripod foot ensures stable contact at all times, reducing interferences from unnecessary vibrations. The BM 230 can also be used on paved surfaces.

- It is a digital wireless microphone that can be operated from the receiver, "hands free", or from the carrying handle, as you prefer.

Indoors or outdoors or in tighter spaces - Universal Mic UM200

When working indoors or outdoors or in tight spaces the UM200 wired Universal microphone is a useful option. Includes an LED (torch) to illuminate dark areas. It plugs into the A200 via a 1.3m lead.

- Tripod accessory to use on hard or soft surfaces
- 350mm tip to listen on valves or other fittings (extension rods available to increase reach)
- Magnet to attach to ferrous fittings
- LED to illuminate dark areas
- Wind protection available

Carrying case and charging

- All components can be charged with one charger (12V car charger or mains) whilst remaining in the case
- Sets can be tailored to suit your application
- All components are powered by Li-ion batteries providing power for all day use.