

# Aquaphon A200 | Wireless Ground Mic for electroacoustic leak location



## Theory

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, or sound, is transmitted by the pipe, and surrounding material. The Aquaphon A200 amplifies these noises allowing the leak location to be pinpointed.

## Features

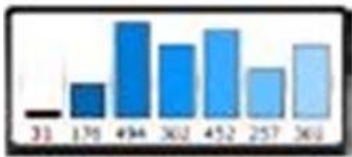
- Digital wireless headphones
- Colour touch screen
- Dynamic Hearing Protection- Protects the users hearing
- On screen application guidance
- Digital wireless microphones
- Digital sound recorder with memory graph and FPF- Fast Playback Function
- Dynamic frequency filtering with touch screen filtering graph
- TM200 & UM200 mics with illuminating LEDs



## Touchscreen - Operational features

**MNL - Minimum Noise Level** - A leak noise is constant; it does not get significantly quieter or louder unlike the noise from traffic and wind. The Aquaphon A200 shows the constantly changing noise level as an active bar graph but also locks onto and displays, numerically the “quietest” moment during the time you have been listening. (the large number in the centre of the display)

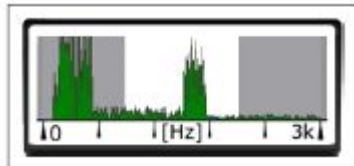
**Memory Graph:** - Previous Minimum Noise Level are recorded and stored. Are you closer or further away from the leak in the current listening position compared to previously? Is the leak sound getting louder or quieter? The higher the number on the display the closer to the leak you are.



## Frequency Filtering with graph

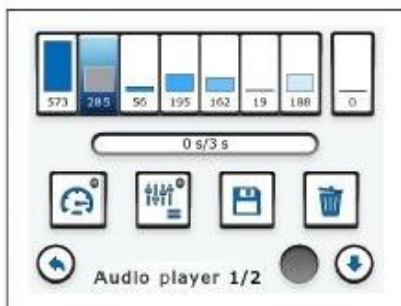
A graph showing the strength (volume) of the frequencies of the sound being heard is displayed. This allows the user to see which frequencies are the strongest. Higher frequencies tend to occur closer to the leak.

- By simply tapping on the screen frequencies can be isolated and silenced allowing the user to focus on listening the water leak frequencies that matter
- Automatic frequency filter can also be used. The A200 will suggest optimum filters based upon what it hears.



## 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. Using the integrated audio recorder and player leak sounds are recorded and by touching the relevant bar graph can be played back at either or normal speed or at a faster speed. When played back at faster than recorded speed it has the effect of rendering all the frequencies sound higher to your ears making the leak’s position easier to pinpoint



## DHP - Dynamic Hearing Protection

- The Headphones are digital and wireless giving you completely free movement without any movement restrictions.
- Utilising high frequency SDR technology there is no interference from any other local radio transmitters
- The Dynamic Hearing Protection function constantly monitors the microphones noise level should there be a sudden increase in sound the headphones are muted to protect your hearing



## Wireless Digital Microphones for all surfaces



### TS 200 Carrying Rod

The TS200 is at the centre of the adaptable microphone choice. The TS200 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



### Pre-location of Water Leaks Microphone TM200

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 BM200.

- 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 in tighter spaces - Universal Mic UM200

When working indoors or in tight spaces the UM200 Universal microphone is a useful option. Includes an LED to illuminate dark areas.

- Tripod accessory
- Listening stick accessory
- Magnet to attach to ferrous fittings
- LED to illuminate dark areas



### Carrying Case and Power

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

