

Combiphon | Locating plastic and non metallic pipes acoustically



Principal of operation

Plastic and fibre cement pipes are not electrically conductive, they cannot be located with traditional Cable Avoidance Tools or the Sewerin electromagnetic range of pipe locators which all work on the principal of detection of electromagnetic fields. The Combiphon can trace these liquid filled pipes by acoustics utilising the Stopper or the Knocker in conjunction with a suitable ground microphone such as the **AquaTest T10**



Combiphon power and control unit

The Combiphon CG 50 central power and control unit houses a rechargeable battery and the controls for the Stopper and the Knocker. The Stopper or the Knocker is plugged in to the CG 50

Stopper for water distribution pipes



- The **"Stopper"** is an intensity controllable piston. It is attached to a hydrant standpipe.
- When the hydrant is opened and water is allowed to flow through the piston it alternatively restricts and widens the water outlet. The water column in the pipe is consequently set in motion producing an unmistakable "heartbeat" sound which can be detected on the surface with a good quality ground microphone such as the AquaTest T10
- The intensity of the "heartbeat" can be altered by adjustment of the piston travel. In situations where there are competing sounds and you wish to turn the unit off to ensure that you are listening to the "heartbeat" there is a remote control (optional) which allows for single man operation.
- Due to the unique design of the piston the back pressure is minimum so damage to the pipe and house service fittings is unforeseen and has never been known to occur
- An advantage in using an electrically controlled piston, as opposed to a spring one, is that changes in water pressure caused by user draw off or a change in pressure have no effect on the settings.



Knocker for customer supply / house service pipes

- On smaller pipes such as house service lines the **"Knocker"** is used
- It attaches around the pipe (up to 100mm) with an adjustable chain. It "taps" on the pipe wall and the resulting sound is heard on the surface with the ground microphone.
- Frequency, intensity and On/Off can be adjusted via a wireless remote control.

Technical data



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| • Power supply: | Lead acid rechargeable battery. Charged with 12 V car cigarette lighter lead or mains adaptor |
| • Operating time: | with the Knocker, between 5 – 80 hrs |
| • Operating temperature: | -10 °C ... +50 °C |
| • Protection class: | IP 54 (lid closed) |
| • Case Dimensions | (W x H x D): 60 x 19 x 21 cm (with compartment for knocker) |
| • Remote control | Radio Remote control. 10 mW |