GAS TRACKER 2  Plastic Gas Pipe Location & Identification

INCREASED SENSITIVITY & RANGE

Tracks **PE & PTFE** plastic gas pipes from the surface

Up to 400 + meters from transmitter

Simple and safe to use

Improves efficiency and reduces costs

Minimum disruption to customers

Sunlight-readable colour interface

**GAS TRACKER 2** is a system for tracking buried gas pipes made of polyethylene or other plastics. The method used is to send a precise acoustic wave along the pipe through the gas. The elasticity of the pipe wall allows some of the vibration energy to be passed by the soil to the surface where it is detected by a sensitive but robust vibration detector. This communicates by Bluetooth with an Android interface using tailored software to filter the transmitted signal from the environmental noise. The pipe can be traced up to 400 meters or more from the transmitter, even in noisy urban environments, and can normally be located laterally to within the width of a spade. Because the signal travels through the gas, the transmitter can be connected to a metal pipe section leading to a plastic section that can be tracked from the surface. Since it is simple to set up and to use, the system can be operated by one person.

The device is supplied with a choice of an IP 66 Tablet or an IP 63 Hand-Held PDA. Alternatively, it can be supplied without any interface, with the software for use with any user supplied interface.

The users of this system confirm that the time saved locating lost pipes rapidly repays the investment in the instrument.

**GAS TRACKER 2** is a great advance on the original system. The interactive colour display gives greater flexibility of operation, and communicates by Bluetooth to the detector foot. This has a removable handle to reduce its susceptibility to wind interference, and is more robust to enable pushing into soft ground with a foot.
**GAS TRACKER 2** has an *updated transmitter* with *simplified operation*. This drives a loudspeaker in a drum which is connected to the gas network at any point, often, but not necessarily, in place of a customer meter. This injects a precise acoustic signal into the gas, and this signal is propagated along the pipe *in the gas*. All PE or other plastic pipes can be traced from the surface, and the signal can pass through a metal pipe section to a plastic section which can then be traced.

The *new detection sensor* is better adapted for use on soft ground and has much greater sensitivity to increase the tracking range of the system. It is placed on the ground in successive positions for measurements to be made to find the lay of the pipe. The detector is moved between each measurement to find the strongest signal, which indicates the position vertically over the pipe.

The *colour interface* shows the current configuration of the unit and the level of signal detected, as well as several previous measurements. The “**Location**” bargraph is always active for a “quick look”, and the filtered “**Measurement**” mode can be activated at the same time to pinpoint the pipe with greater precision. The measurement *analysis period* can be varied by the operator, so as to adapt the operation to the level of environmental noise. The receiver can be set to one of several *amplification levels*, so as to better adapt the receiver performance to the environment and the distance from the transmitter. The system is supplied in two carrying cases, which weigh only 12 and 13 kg, so that it is easily carried by one person.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Component</th>
<th>Transmitter</th>
<th>Receiver &amp; Detector</th>
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</thead>
<tbody>
<tr>
<td><strong>Supply</strong></td>
<td>Integral 12V. battery for 4 hours operation</td>
<td>Android Tablet with 7in sunlight readable screen. Or Hand-held PDA both with 8 hours operation. Alternatively, any device running Android.</td>
</tr>
<tr>
<td></td>
<td>12 V. supply cable 220 V. for charging</td>
<td>Carrying case 55 x 35 x 22 cm. Detector 15 cm. diameter</td>
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<tr>
<td><strong>Dimensions cm.</strong></td>
<td>Carrying case 36 x 40 x 20 cm. Resonant volume 18 cm. Dia. 25 cm long</td>
<td>Carrying case complete—13 Kg. Detector 2 Kg. Hand-held 1 Kg.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>Carrying case complete—12 Kg. Resonant volume 4 Kg.</td>
<td>-20 to +60 °C</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>-20 to +60 °C</td>
<td>-20 to +60 °C</td>
</tr>
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**GAS TRACKER** is CE marked, & built to the European standards NF EN 50081 & 50082-1
MADE-SA is qualified ISO 9001

GPS Location
The GPS incorporated in the tablet enables the position of the pipe to be recorded directly, and a plan transferred to a computer.

The Hand-held interface communicates with the detector foot using Bluetooth, thereby eliminating the connecting cable, thus reducing wind interference.