



Integrated measuring systems
for the whole water cycle



Leak Noise Correlator

MicroCorr Touch



Touch Screen

Best class Sensor

Easy to use

Robust

HYDREKA
www.hydreka.fr

Presentation

The MicroCorr Touch represents a breakthrough in leak detection technology. It features new “best in class” sensors designed to be at least twice as sensitive as anything available on the market today. This enables it to perform well even in traditionally difficult conditions, such as on plastic and large diameter pipes.

MicroCorr Touch is the first standalone correlator to feature a high visibility full colour VGA touch screen to greatly improve data entry and the quality of data presentation. The intuitive user interface enables the unit to be operated with the minimum key presses. The large screen, with anti-glare screen protection clearly displays correlation results and supportive information even in bright sunshine.

The tri-filter correlation option performs three correlations at different filter settings simultaneously, which is particularly useful when filter settings (pipe material) is uncertain. When the best filter is seen, the correlation switches to focus on this.

The outstation is compact with high quality long range radio transmission; it also features a magnet to secure onto metallic street furniture. The purpose designed robust case not only carries and protects all components but charges them via mains or vehicle supply. The charge level for all items is available at the touch of a button.

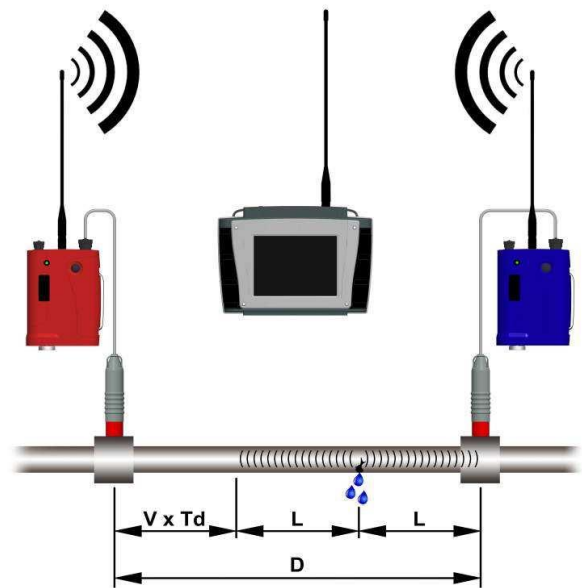
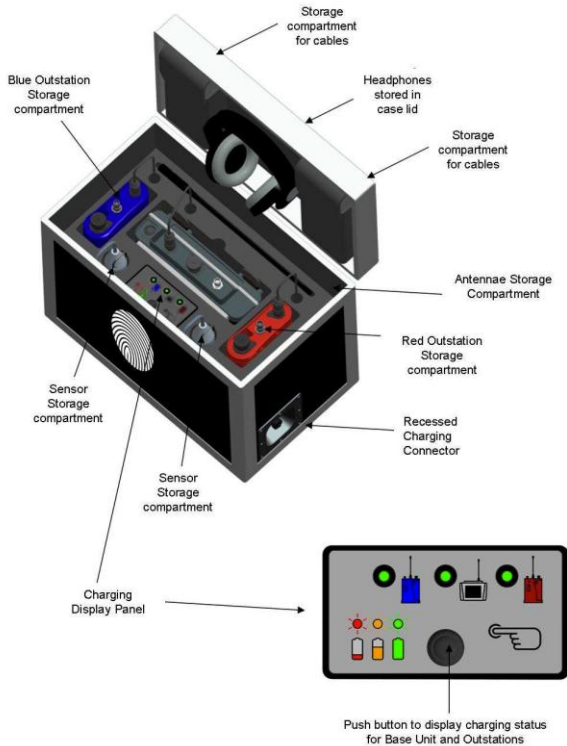
Using our extensive experience of correlator design and manufacture, HWM have created an easy to use system that delivers the best all round performance at a highly competitive price.



Key Benefits

- 165mm high-visibility colour VGA Touch Screen.
- Tri-Filter Correlation.
- Precise, accurate leak location.
- Highly intuitive user interface based on minimum key presses.
- Compact, portable design.
- Robust construction.
- Straps on rear to assist handling.
- Rechargeable batteries.
- Weight - 1.9kg.
- Anti-glare screen protector.
- Mil-spec connectors.
- High Impact PC/ABS Casework.
- Sensor Development (d.c.-5000Hz, High V/g).
- Outstation to Basestation range – 1000m LOS

Correlation Principle



MicroCorr® Touch measures the time difference between leak noise signals arriving at each sensor. The leak position is determined by relating this difference in propagation (travel) time to the velocity of sound along the pipe and to the measured distance between the sensors.

In the "classic" correlation process, two sensors are deployed on pipe fittings ("dry" connection) or connected to hydrants using hydrophones ("wet" connection).

The sensors are positioned either side of the suspected leak position. Noise is created by the leak as it escapes from the pipe under pressure.

This noise is conducted in both directions away from the leak through the pipe wall (as minute vibrations) and through the water column (as a pressure wave).

The leak noise travels at a constant velocity (V), which depends on the material and diameter of the pipe, and arrives first at the sensor nearer the leak.

The arrival time at each sensor is registered. The time difference (T_d) between the two arrival times, combined with knowledge of the sound velocity which is provided by the pipe type and length, allows the leak position to be calculated by the correlator.



Technical Specifications

| Control Unit | |
|---|--|
| Filter Selection | Manual, FFT, Coherence and Tri Filter Correlation. Pipe-data related default settings |
| Resolution | ± 0.1m |
| Display | High Visibility Full Colour VGA |
| Antennae | External antenna/magmount |
| Battery Type | Rechargeable Lithium ion batteries, field replaceable |
| Battery life | 7 hours (Rechargeable) in Case |
| Type of keypad | Touch Screen interface coated with Tuffscreen anti-glare screen protection |
| Key functions | Tri-Filter Correlation Combined correlation/survey mode Listen (acoustic survey) Frequency analysis Peak suppression User definable pipe types & velocities Intuitive user interface In case charging |
| Language | Selectable via menu |
| Operating software | MS Windows-CE embedded |
| Printer output | USB to PC software-enabled printing |
| PC Download | Via PC software, Windows-compatible software |
| Dimensions | Height to Top: 90mm Width: 250mm Depth: 180mm |
| Weight | 1.9 kg |
| Operating Temp | -15°C to +50°C |
| Environmental | IP65 |
| Enclosure | High Impact PC/ABS plastic |
| Connectors | Military specification Amphenol-Type |
| Diagnostics | Self-test and auto-calibration on power-on |
| Outstation (optional 1 or 2 radio outstation systems) | |
| Radio freq. | Local regulations apply |
| Connections | Headphones, External antenna, Charging |
| Battery type | Rechargeable Lithium ion batteries, field replaceable |
| Battery life | 7 hours (Rechargeable) |
| Antenna | External antenna |
| Dimensions | L 200mm W 135mm D 50mm |
| Weight | 0.87 kg |
| Environment | IP65 |
| Housing | High-impact PC/ABS plastic |
| Connectors | Military specification Amphenol |
| Sensor | |
| Frequency Response | d.c.- 5000Hz, High V/g |
| Environment | IP68, rubber shroud for shock protection |
| Connection | 3m cable with strain relief Military spec connector |
| Hydrophones | Available as option |
| Case | |
| Charging | In case charging through mains or 12V vehicle supply. Case indicates charge for all components |

Products available to rent or buy. Please contact us for more information.

HYDREKA
www.hydreka.fr

34, route de Saint Romain - 69450 St Cyr au Mont Or – France
Tél. +33 (0)4 72 53 11 53 - Fax +33 (0)4 78 83 44 37 - e-mail : hydreka@hydreka.fr

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