



## Touch screen correlator with powerful filtering options for all pipe materials

The innovative **Eureka3** provides high performance leak location even on plastic pipes. Operation of correlating noise loggers and ground microphone is available from the same platform for optimum leak location and confirmation.

### Features

- High definition touch screen for easy operation
- Street-working friendly
- Velocity correction function
- Powerful new Adaptive Filter option
- Off-line leak location via correlating loggers
- Leak confirmation using ground microphone

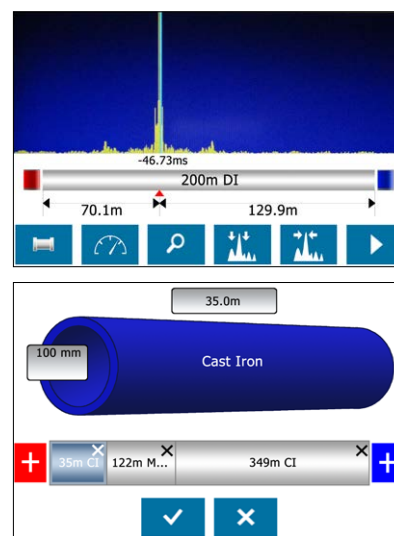
### Eureka3 - Easy touch screen operation

The **Eureka3** software operates on the **PrimeTouch**® hardware platform which is designed for water leakage control applications. The high visibility colour display provides clear operation in all weather conditions. The touch screen ensures easy operation involving the minimum actions to achieve results. Large 'virtual buttons' allow use when gloves are worn. The use of dual co-processor accelerates filtering, coherence and correlation processing.



### Eureka3+ - Powerful Adaptive Filtering

The **Eureka3+** incorporates the new **Adaptive Filter**. This operates live in the frequency domain and automatically applies different filter frequency ranges selecting the correlation with the best peak. **Spectral Whitening** is a further option which gives constant amplitude at all frequencies; boosting high frequencies (which are attenuated along the pipe). These filters enable the location of difficult leaks missed using correlators with conventional filters. The **Eureka3+** option also features post-processing such that re-analysis of results can be carried out on and off site.



Clear correlation display of leak position

Simple, interactive, entry of pipe details



**Features**

- Optional direct transmitter connection to pipe (street working friendly)
- Rapid leak detection - before entry of pipe details
- Unwanted noise suppression
- GPS leak and transmitter locations saved
- In-case battery charging from mains or vehicle

**Off-line correlation using Enigma loggers**

Sometimes pipe fittings are not easily accessible or excessive noise interference exists during the day. In these situations the *Enigma* correlating loggers can be programmed from the *PrimeTouch* processor and deployed. Off-line correlation can be carried out at any time including overnight. When the correlation is complete the results are analysed on *PrimeTouch* and the leak location marked on-site.



**Leak confirmation via Mikron3**

Connection of the ground microphone to *PrimeTouch* is achieved via wireless communications to eliminate airborne noise pick-up. Very high quality leak listening together with minimum noise and frequency level displays enable accurate leak pinpointing and confirmation.

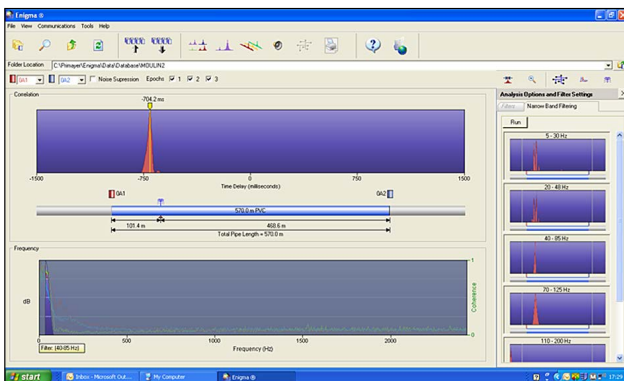


**Velocity correction for improved accuracy**

Potential errors in the leak position result from the use of default velocity values of leak noise propagation. The velocity correction function overlays a correlation peak produced from induced noise, over the correlation produced from the leak noise. This auto-corrects for velocity variation giving a more accurate leak location result.

**Post-processing analysis via PC software**

Leak noises saved into *Eureka3* and *Enigma* memory can be transferred to the powerful *Enigma*® PC software for later analysis. This software includes techniques such as 'narrow-band filtering' and an interface to Google Maps\* such that the leak position can be shown.



Leak located on 100mm PVC over 580 metres using narrow band filtering technique

**Products**

|  |                                |
|--|--------------------------------|
| Correlator system (includes external accelerometers)                   | <b>CXG 931</b>                 |
| Correlator system + Enigma loggers (set of 3)                          | <b>CXG 933</b>                 |
| Correlator system + Mikron3 ground microphone                          | <b>CXG 934</b>                 |
| Correlator system + Enigma loggers + Mikron3 ground microphone         | <b>CXG 936</b>                 |
| <b>Eureka3+ Option</b>   |                                |
| Eureka3+ upgrade incorporating Adaptive Filtering + signal re-analysis | Add /3+ to above product codes |



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