

# Eureka<sup>3</sup>

## Innovative leak location correlator

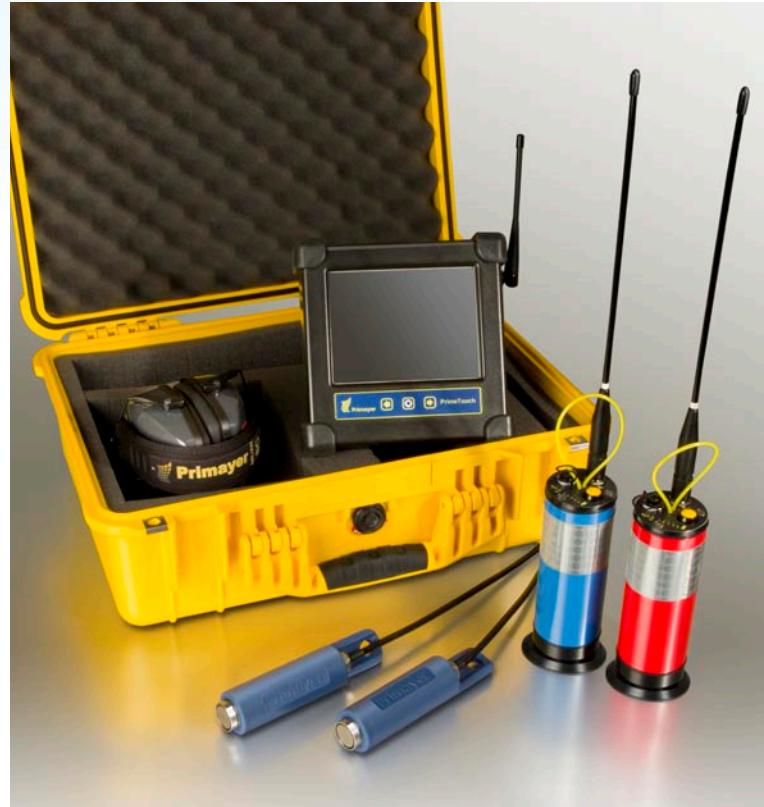
**Eureka3** combines a number of technology innovations to provide a high performance leak location correlator. It is intuitive and easy to use, but also has many advanced features to enable operators to obtain optimum leak location results.

### Benefits

- High definition touch screen for easy operation
- 16-bit digital correlation processing
- Interactive pipe model, correlation and coherence spectrum displays
- Velocity correction function
- Post-processing analysis using powerful *Enigma*<sup>®</sup> software
- Compact, with in-case battery charging

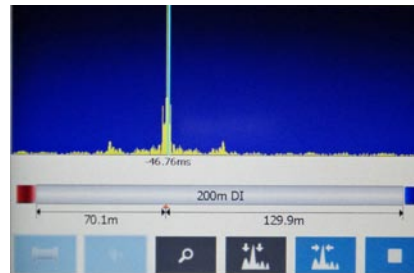
### Optimising performance and investment

*Eureka3* is a new innovative design that builds upon the established confidence and performance users gained from the *Eureka2R* leak noise correlator. *Eureka3* combines simple operation, via an interactive touch screen display, with optimum performance and sophisticated features. The result is optimum performance and return on investment.

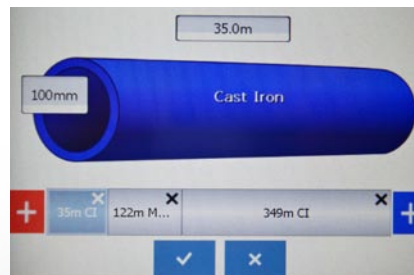


### PrimeTouch™ - easy touch screen operation

The *Eureka3* software runs on the new *PrimeTouch*<sup>™</sup> hardware platform designed for water industry applications. The high visibility colour display provides clear operation in all weather conditions. The touch screen ensures easy operation with minimum actions. Large 'virtual buttons' allow use when gloves are worn.



Clear correlation display of leak position



Simple, interactive, entry of pipe details



technology for network management and leakage control

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## Advanced analysis

Use of a dual co-processor significantly accelerates the FFT, filtering and correlation tasks. This allows use of 16-bit digital signal processing in real time, without impacting the responsiveness of the user interface. The result is improved correlation together with coherence and spectral analysis.

### Additional features

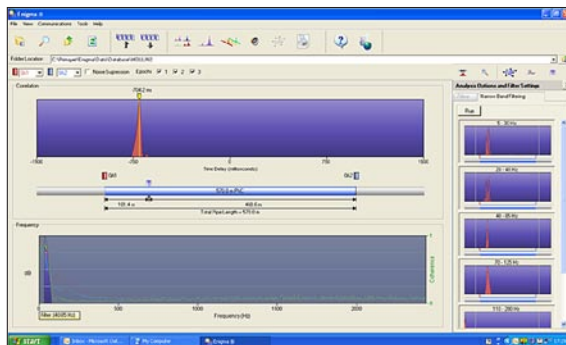
- Optional direct transmitter connection to pipe (street-working friendly)
- Automatic and manual filter options
- Zoom function
- Unwanted noise suppression
- GPS connection for leak position

### Velocity correction for improved accuracy

Potential errors in leak position result from the use of default velocity values for leak noise propagation. *Eureka3* utilises a unique function to overlay a correlation peak produced from induced noise over that produced from the leak noise correlation. This auto-corrects for velocity variation giving a more accurate leak location result.

### Post-processing analysis

Leak noises are saved into *Eureka3* memory and can be transferred via USB connection to the powerful *Enigma*® software for later analysis. This software includes techniques such as 'narrow-band filtering' for improved results. It also includes an interface to Google Maps\* such that utilising the *Eureka3* GPS facility the position of a leak can be marked.



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



### System components

- PrimeTouch™ processor unit
- Transmitters (two per system)
- Headphones
- Transport case with in-case battery charging
- Mains charger
- Vehicle charge cable

### Optional components

- External accelerometers (two per system)
- Hydrophones (two per system)
- Sensor extension cable
- Accelerometer grip attachment
- Vehicle mount antenna

### Part Numbers

Eureka3 Leak Noise Correlator (without external accelerometers)	CXG 930
Eureka3 Leak Noise Correlator (with external accelerometers)	CXG 931
Hydrophones (set of 2 in carry bag) - no pipe fittings	CXG 412



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