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UTILITY TOOLS FOR TODAY

AQUASCAN m2

Trunk Main Leak Locating Correlator

Powerful high-end touchscreen correlator designed specifically to find leaks on large diameter pipes over long distances – intelligent, non-intrusive and user-friendly.

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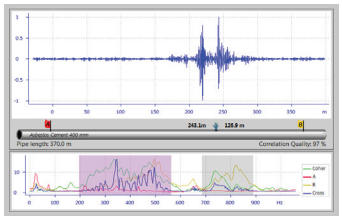

Designed for tough conditions and materials

With higher processing speeds, improved signal processing technology, increased sensitivity and the possibility of unlimited correlation, this correlator can detect even **quiet leak noise at low frequencies** and can therefore accurately pinpoint leaks even in the most challenging conditions, particularly on large diameter pipes (trunk mains), non-metallic pipes and over longer distances than before.

With its **powerful radio** transmission and the option to use antenna stands, the AQUASCAN TM2 can correlate leaks over distances of 1 km or more. If required, hydrophones can be attached to a hydrant or tapping in the pipe and provide additional sound input.

Stainless steel housing provides maximum protection for the transmitting sensors when left for hours or days in a pit with sometimes corrosive substances.

The **ruggedized Windows tablet PC** with illuminated buttons for night work, shock-proof rubber padding and a colour touchscreen complete the kit.

New, advanced algorithms and functions

The AQUASCAN TM2 boasts a completely revamped software package with a host of new and improved functions, making this the **most powerful correlator** yet on the market.

When activated, the **"Auto Filter"** automatically selects the most relevant frequencies in order to generate an accentuated correlation peak, even for faint signals.

The **"Spot Filter"** is a brand-new and unique feature letting the operator click on the area of the pipe where a leak is suspected, and the correlator focuses on the noise profile of that confined area.

The **"Notch Filtering"** function removes electrical mains noises from the sound spectrum, including higher harmonics.

The operator can either listen stereo to both sensors or to each sensor individually. Furthermore, the new **"Filtered Listening"** feature lets you listen to the leak sound file with selected filters applied. This is ideal for suppressing ambient noise like road traffic or electrical interferences.

Cost-effective and very user-friendly

Contrary to other trunk main leak inspection methods, working with the AQUASCAN TM2 is **non-invasive and non-destructive**. The setup is easy with magnetic connectivity of the stainless steel accelerometer sensors and with radio communication, allowing the operator to close the manhole covers for longer day correlations or correlations overnight, and avoiding tripping on cables. No more additional costs required: No costly pipeline inspections involving pipe tapping and drilling access channels, no vanished or stuck freely floating sensors (eg. "Bullets" or "Balls"), no risk of water contamination, as the case may be with other less convenient technologies.

The operation is **extremely simple** with the AQUASCAN TM2. One main screen, intuitive programming via large touch-screen buttons, and aided by the brand new Automatic Filtering function, make finding leaks on trunk mains, indeed any type of pipe, as easy as using a car navigation system. The AQUASCAN TM2 is therefore an appropriate instrument also for operators with little or no leak location skills.

Increased convenience for the experts on the TM2

Apart from the more advanced correlation algorithms with the Auto Filter, Spot Filter and Filtered Listening, the AQUASCAN TM2 boasts several other new features and improvements over its successful predecessor model.

For instance an increased **signal/ noise ratio** by 40%, which helps find even quieter leaks. Or the automatic multi-frequency band correlation, allowing the user to easily **detect multiple leaks** on the same pipe section. Or the proprietary **"Enriched Wave files**" that can play back the real sound file on any windows-based computer, but which also carries enriched data (eg. pipe distance and material), so that these files can be shared by email and correlations performed on a different computer with the AQUASCAN TM2 software, even by Gutermann experts for second opinion.

As usual for Gutermann products, the AQUASCAN TM2 allows free firmware and software updates for the life of the product.

System Configuration

1 Correlator receiver with vehicle mount antenna
1 Pair of headphones
1 Pair of hydrophones and connection cables
Transmitting sensors with antenna, extension antenna cable and stand.
1 Ruggedized Windows tablet PC
1 12V vehicle charge cable with 3 connectors for receiver and sensors
1 110-240V AC adapter
2 Hot swappable PC Batteries
1 Correlator carry case
1 Operating manual
2 Years warranty

Technical Specifications

Pipe Material	All common pipe materials; mixed material mode
Sound Velocity	Sound velocity table and on-site velocity check
Filters	Auto-filter, spot filter, manual filter, notch filter
Frequency Analysis	High-resolution FFT, coherence analysis and cross-spectrum analysis
Frequency Response	1-5000 Hz
Peak Suppression	Unlimited, user selectable
Maximum Correlation	Unlimited time recording per correlation
Memory Capacity	Unlimited (subject to device memory) with post-processing of correlation with changed parameters
Sensors	High-sensitivity stainless steel piezo-ceramic sensors with radio transmitter, magnetic fixing and 3dB gain antenna
Output	Bluetooth for data transfer to PC. Multi-purpose socket for battery charger
Input	Multi-purpose socket on sensors for charging and connecting hydrophones
Power	Sensors: Rechargeable 3.7V Lithium-polymer battery (vehicle or indoor charging)
Battery Charge Life	Sensors: up to 8 hours
Dimensions	Receiver: 200x110x30 mm (7.8"x4.3"x1.2"), transmitting sensors Ø61x128 mm (Ø2.4"x5")
Weight	Receiver: 0.4 kg (0.9 lbs.); transmitting sensors: 1.55 kg (3.4 lbs.)

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