

ZONESCAN 820

Correlating Radio Loggers

Use correlating radio loggers to identify and pinpoint leaks with ease, display the loggers and the leaks on your smartphone or tablet and store the data on ZONESCAN Net.



GUTERMANN is pushing the boundaries of acoustic leak detection and bridges the gap between mobile and fixed approaches. The unique modularity of ZONESCAN works in your favour!



The global success story of ZONESCAN 820

The ZONESCAN logger was the first correlating logger in the world, launched in 2001, and has been sold tens of thousands of times. Since then it has been re-engineered to perfection: it's become smaller, more sensitive and more robust. The interior does entirely without any cables and the degree of industrial miniaturisation is unmatched.

The ZONESCAN 820 logger is the only logger on the market with a proprietary radio module, designed in-house to perfectly fulfil the very high requirements of frequent outdoor use. At GUTERMANN we have a zero-tolerance policy for hardware failures. Needless to say, the loggers are IP68 protected.

The ZONESCAN family is entirely modular

Whether you use your ZONESCAN 820 loggers in a lift & shift, drive-by or fixed network (remote access) mode, you only ever buy one type of logger that can be used for all purposes. This allows you to change your work mode along the way or to add more loggers to your collection in the future.

The bi-directional radio connection allows us to help you upgrade your loggers' firmware at any time in order for you to be fully up to date with the latest technology.

The brand new ZONESCAN Smart management tool lets you export all your project data into ZONESCAN Net should you ever choose to manage your network and store all data "in the cloud" (see next page).

30 times more sensitive thanks to correlation

GUTERMANN invented the correlating logger in 2001. Today we know that pure noise logging produces too many false positives (false alarms) and false negatives (unidentified leaks). In busy cities there is just too much noise and electrical interference that renders noise level logging ineffective.

ZONESCAN 820 loggers can filter out ambient noises around the loggers (thanks to correlation) and electrical and mechanical sounds on the pipe (with advanced spectrum analysis) and identify real leaks.

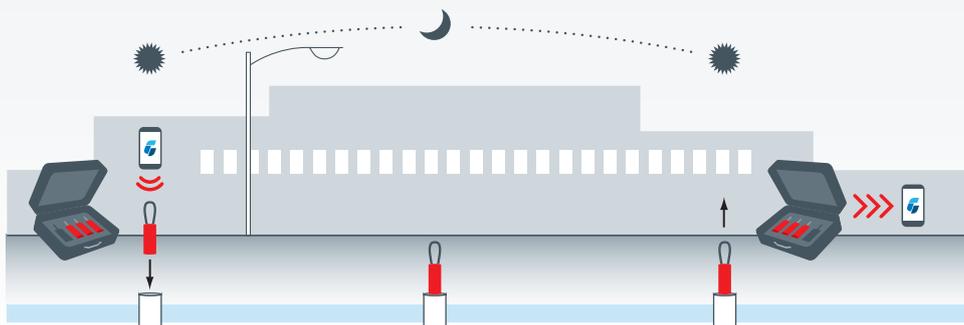
Another crucial benefit of correlation is the ability to automatically and accurately pinpoint the location of the identified leak. With your pipe data imported, the leak will be placed on the correct spot on the pipe map.

ZONESCAN - the logger of worldwide reference

The ZONESCAN 820 logger has become the leak noise logger of choice for many of the large European, Asian and US technology companies seeking to establish themselves as solution providers in leak detection. They have all chosen to align their own solutions with the ZONESCAN family of products.

The ZONESCAN product family is available in more radio frequencies than any other logger: fixed 868 MHz frequency in Europe and the Middle East, 916 MHz frequency in Australia and Israel, 925 MHz frequency in Japan or 915 MHz frequency with frequency hopping (spread spectrum) in North America, to name just the most important ones.

Lift & Shift mode



Scan & Deploy

Log Data Overnight

Collect, Read Out & Re-deploy

Download & Send (Optional)



Lift & Shift mode (see illustration bottom left)

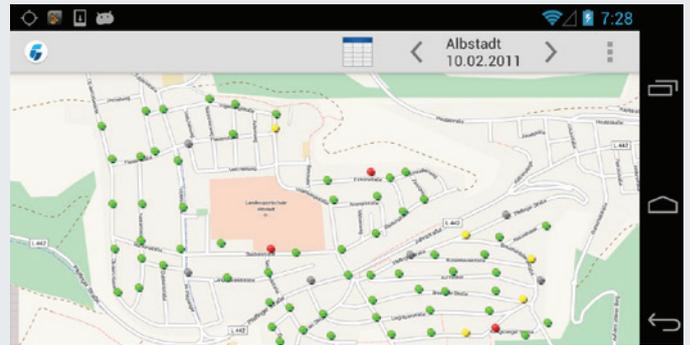
When the term "Lift & Shift" was first introduced by GUTERMANN engineers, this method of performing periodic leakage surveys in confined areas and collecting the data for subsequent analysis on the transport of the loggers from area A to area B was the most common way of using loggers. To this date, it is still a popular method for utilities that like to assign leakage teams to periodically check all areas of the pipe network for new leaks.

In Lift & Shift, the operator programmes the loggers before deploying them overnight and collecting them on the next day in order to download and review the collected data.

Drive-by mode (see illustration bottom right)

In "Drive-by" mode the loggers remain permanently at their assigned locations in the pipe network. In periodic intervals at the utility's discretion the operator drives by the logger locations and the ZONESCAN Commlink automatically picks up the recorded data from the loggers. Up to 30 days' worth of logging can be stored, as well as one night's correlation data.

The Drive-by method is preferred by utilities who want to minimise the frequency of surveying specific areas and therefore reduce any leak runtime. They also want the option of drawing on longer historical data for each logger in order to analyse specific leak situations.



ZONESCAN Smart for smart operators

ZONESCAN smart is revolutionising mobile leak detection as you know it. Java-based and available for all Android-run smartphones and tablets, it is the most advanced and user-friendly operating software for any mobile noise logger system. The convenient auto filter greatly improves your leak hit rate.

All relevant data (logger positions, leak positions, imported pipe data) and even your own current position are displayed on OpenStreetmap or Google Maps in the same clear and neat fashion as we know it from ZONESCAN net.

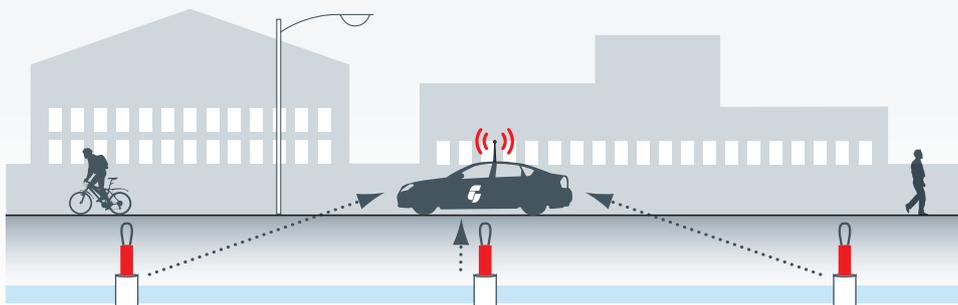
ZONESCAN smart can be used for both Drive-by and for Lift & Shift operation. And all data can be exported to your ZONESCAN Net project.

Upgrade to Fixed Network Monitoring

If you already own ZONESCAN 820 loggers, you can upgrade them to fixed network monitoring ZONESCAN Alpha. Simply deploy them permanently on your pipe network and connect them via ZONESCAN repeaters and Alpha units to your cloud-based ZONESCAN Net account. And you won't ever have to leave your office again, except for leak repairs.

Our ZONESCAN smart and ZONESCAN net platforms are compatible. You can exchange data easily between them. Use ZONESCAN smart for maximum convenience in the field, and use ZONESCAN net for unlimited data storage, long-term correlation and data analysis and for sharing your network data within your organisation as well as extended reporting tools.

Drive-by mode



Read Out & Re-programme

Download & Send (Optional)



ZONESCAN 820

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Legend

1. Android-based tablet or smartphone (optional)
2. Car roof antenna
3. System Communication Link
4. ZONESCAN 820 Correlating Radio Loggers
5. Robust carrying case



ZONESCAN 820 is the leading leak detecting and pinpointing logger system on the market. Can you afford to use anything else?

System configuration

ZONESCAN 820 loggers

- 1 System Communication Link
- 1 Software (ZONESCAN smart for Android tablets/phones or PC software)
- 1 Car roof antenna
- 1 User manual
- 2 years factory warranty

Accessories

- 1 robust carrying case for up to 40 loggers, the Commlink and accessories

Technical specifications of the ZONESCAN 820 loggers

Casing:	High-quality Aluminium casing (stainless steel casing upon request)
Ingress Protection:	IP68, submersible up to 2 meters
Temperature range:	-30°C to +70°C
Battery life:	Depending on user-specific usage, but optimised in firmware
Dimensions:	100 mm x 41.5 mm (height x diameter)
Weight:	310 grams
Data transmission:	Proprietary radio, country-specific public frequency

Software Features

ZONESCAN smart:

- for smartphones or tablets with Android 2.3 or higher
- Visualisation of loggers and the current GPS position on the map
- Choice of Google Maps or OpenStreetMap Project map data
- no online data connectivity or SIM card required
- KML layers can be imported and displayed (e.g. pipe network or hydrants)
- Intelligent "Leak Score" facilitates the identification and distinction of real leak noises
- Data storage and backup on ZONESCAN net possible with an individual customer account
- Recorded sound signals can be replayed anytime
- Lifelong software updates

ZONESCAN pc:

- Windows XP, Vista, 7, 8 (32 and 64 bit)
- Detailed visualisation and analysis of noise histograms, sound spectra and correlations
- automatic correlation of all ZONESCAN loggers in the specific project
- Export of measurement data as KML file for subsequent visualisation of the results in Google Earth
- Project import and export for a simple exchange and backup of measurements



Gutermann AG
Sihlbruggstrasse 140
CH-6340 Baar, Switzerland
T. +41 41 7606033
F. +41 41 7606034
E. info@gutermann-water.com
W. gutermann-water.com

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