

# RD533 Correlator

## Multi-function leak detection system

### Features

- Portable.
- Correlator/geophone/listening device in one compact system.
- User-friendly control features.
- Solid aluminum case.
- 500mW transmitter (subject to regulatory approval).
- Charge or power direct from your vehicle (no adapter required).
- Headphone jack in central unit and measuring boxes.



### Measurement Principle

The multi-functional RD533 correlator detects leakages (correlation and geophone) on drinking water networks and can trace pipeline topography. Simple operation enables even unskilled operators to locate leakages successfully.

The pressurized water inside the pipe generates leakage noise at the leakage point. This noise travels in both directions through the pipe and is detected by highly sensitive sensors which are mounted at accessible places such as hydrants, valves etc.

The amplified signal is transmitted to the central unit, and the coherence and correlation functions are calculated and displayed by the LCD.



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## Testrod and Geophone

The testrod is highly sensitive. It is designed to detect even minute leakages. The testrod is adjustable, making it ideally suited to listening to water meters and checking pipeline network sections systematically.

When leakage noise is detected with the testrod, or when the correlation results have to be verified, the integrated geophone can be applied. The filters are automatically or manually set according to the kind of leakage-borne noise. The integrated data memory device allows the operator to compare the detected noises and pinpoint the location of the leakage.

## Technical specifications

### Central Unit

Resolution:	0.2m.
AFS function:	Automatic search for frequencies.
Memory capacity:	20 correlations.
Filters: High-pass/ low-pass	15 steps each.
Operating/charging time:	About 14 hours/3 hours.
Graphics:	240 x 64 points.
Interfaces:	RS 232, DB-25 parallel port.
Connections:	Sensor/hydrophone/antenna/headphones.
Temperature range:	-20°C to +60°C.
Dimensions:	260 x 150 x 105mm.
Weight:	2.5kg.

### Measuring Boxes

Display:	Graphical/numerical.
Displayed data:	Current level/minimum level, battery charge level.
Radio frequency:	433MHz.
Transmitting power:	500mW.
Lighting:	Automatic.
Operating/charging time:	Approx. 9 hours/3 hours.
Dimensions:	225 x 165 x 100mm.
Weight:	2.9kg.

### Sensors

Standard:	Piezoceramic.
Sensitivity:	>1.000 pC/g.
Mounting:	Permanent magnet.
Operating temperature:	-20°C to +60°C.



### Correlator

- Coherence display.
- AFS functionality (automatic search for filters).
- Measurement on sections with varying pipe materials.
- High measurement accuracy, even on plastic pipes.
- Direct printing of measurement results; no PC required.
- Software updates through RS 232.

### Correlator

- Functions: search for pipes and pipe bursts.
- Displayed data: current/minimum/average value.
- Adjust function: automatic setting of sensitivity.
- Automatic data saving process.

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