LT-Sonic®

Plastic Water Pipe Locator + Water Leak Detector

LT-Sonic®is a dual-function device designed for precise **plastic water pipe location** and **water leak detection**. Using a powerful pulse generator and high-sensitivity geophone, it allows utility teams, water operators, and leak detection professionals to trace buried non-metallic pipes and identify leaks with speed and accuracy.

The LT-Sonic® is equipped with Professional iOS and Android app.

HIGH SENSE SOLUTIONS Inc.

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Key Features

- Plastic Pipe Location Mode
  - Uses a powerful mechanical pulse generator to create water waves.
  - Detects wave signals with a super-sensitive geophone.
  - Works on pipes made from HDPE, PVC, PE, etc.
- Water Leak Detection Mode
  - Converts into a leak detection system by switching modes.
  - Amplifies leak noise through headphones and displays live spectrum and volume.
- Mobile App (iOS & Android)
  - Visualizes and records signal intensity.
  - Real-time spectrogram for leak or pulse detection.
  - Generates geo-tagged reports in KML, KMZ, or CSV formats for GIS integration.
  - Supports offline and online mapping.

Applications

- Locating buried plastic water pipes in urban, rural, or industrial settings.
- Identifying leak points in pressurized water lines.
- Supporting maintenance and non-revenue water (NRW) reduction programs.
- Creating GIS-compatible reports for asset management systems.

Advantages

- No need to insert tracer wires in plastic pipes.
- Dual functionality reduces equipment cost.
- Lightweight and portable with mobile-based reporting.
- GIS integration improves utility mapping and documentation.

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Specification

Transmitter (Pulse Generator)		
Operation Mode	Mode A: Water Pipe Locating Mode	
Technology	Pulsed pressure wave (Magnetic) Acoustic	
Frequency Range	Up to 4 pulses per Second (Adjustable)	
Input Thread Size	½" G	
Pipe Connection	Standard Accessories: ½" Ball Valve+ Brass Y Strainer Filter Hexagon nipple ½", Hose pipe connector, 1/2" female elbow 45°, Pressure Relief Valve 3 Bar, Pressure Relief Valve 6 Bar Optional Accessories: 20 Cm hose damper	
Operation Pressure	Max: 7 up to 10 bar (145 PSI)	
Power Supply	External 12 VDC (3A) Standard Accessories: Car Adapter Lighter Socket with 10m Cable Optional Accessories: 12V 9Ah External Sealed Lead Asid Battery with 5m Cable and Fast Charger (installed in NANUK 903 Waterproof Case)	
Pulse Generator lifetime	50 million cycles Continuous Operation, Max-FRQ: Up to 2 Years and Min-FRQ: Up to 6 Years	
Dimension	L: 5.3" x W: 2.7" x H: 1.2" (136mm x 60mm x 30mm)	
Weight	~ 950	
Receiver		
Operation Mode	Mode A: Water Pipe Locating Mode	Mode B: Water Leak Detection Mode
Technology	Acoustic	
Sensor	Pick-Up Sensor, Highly Sensitive Piezoelectric Type, Sensitivity 1.1 V/g	
Operation Frequency	1 to 200 Hz	100 to 4000 Hz
Filter	Low Pass 200Hz	4 Selectable Filter HP: 100, 400Hz / LP: 1200, 4000Hz filteROT™ (Filter Rotation mode)∗ is as a smart solution to select the best filter)
A L J ™ Mode	None	Automatic Leak Judgment Mode∗ Judgment the leakage possibility in 10 sec sound analysis.
Communication	BLE (Bluetooth Low Energy)	
	LT-Sonic APP (Android and iOS)	
Battery	3.7 V/ 950mA Li-Pol Rechargeable Battery USB A for Battery Charging	

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Certification and Compliance	Certification and Compliance (FCC, CE, ICES) (In Process) European Telecommunications Standards Institute (ETSI) ETSI EN301 489-1 V2.2.3 (2019-01) & ETSI EN 301 489-17 V3.2.4 (2020-09) INTERNATIONAL ELECTROTECHNICAL COMMISSION (International Special Committee on Radio Interference) IEC 61000-6-3 / EN 61000-6-3 Generic standards – Emission standard for residential, commercial, and light industrial environments Innovation, Science and Economic Development, (ISED) Canada, ICES-003, ISSUE 7, CLASS B Verification Authorization – Information Technology Equipment (Including Digital Apparatus) Federal Communications Commission (FCC) CFR 47, Part 15, Subpart B Class B – Unintentional Radiators
Dimension	L: 5.3” x W: 2.7” x H: 1.2” (136 mm x 60 mm x 30 mm)
Weight	~ 730 gr
Warranty	1 Years Limited Warranty 5 Years after-sales service
Made in Canada	With domestic and foreign components.
High Sense Solutions Inc.	

The contents are subject to change without prior notice.
∗: is available when using the LT-Sonic™ APP.

NOTE: The LT-Sonic ® pulse generator can be used on the main pipe and can be used on short service pipes from properties to the water main. Any ANTI VAC or NON-RETURN VALVE will inhibit the signal, and the LT-Sonic receiver couldn’t detect the pulse sound.

CAUTION: The LT-Sonic® pulse generator produces a pulsed pressure wave along the pipe. This pressure wave does not exceed the rated pressure of most water supply systems. To avoid the risk of damage, do not use the LT-Sonic® for prolonged periods exceeding 30 minutes or on substandard or old water supply systems. Always use the pressure relief valve and damper hose when applying the LT-Sonic to a tap within 15m of a building.

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