Water Leak Detection Devices
FUJI TECOM INC.

Workshop on Water Supply for Pacific Island Countries
January 22, 2026

Corporate History of Fuji Tecom

～Over 60 Years Contribution to Water Industry～

- 1958 Founded as FUJI SANGYO INC.
- 1969 Established subsidiary publisher, “ROSUI BOSHI SHIRYOSHA Co., Ltd.”, the 1st technical journal
- 1971 Established Technical Development &Training Center at Niiza, Saitama
- 1972 Established subsidiary survey contractor and consultant, FUJI ROSUI CHOSA Co., Ltd
- 1979 Founded First Survey Company in Japan (currently as FUJI SUBSURFACE INFORMATION, LTD.)
- 1985 Renamed as FUJI TECOM INC.
- 1994 Launched Marker Locating System
- 1999 Obtained ISO9001 certificate
- 2005 Launched Digital Leak Detector FSB-8D
- 2005 Completion of Technology and Development Center and renewal of Training Course
- 2007 Launched Digital Noise Reduction Water Leak Detector DNR-18
- 2012 Launched Leak Noise Logging System LNL-1
- 2018 Launched Pipeline & Cable Locator PL-G
- 2020 Launched Digital Leak Noise Correlator LC-5000
- 2021 Launched Water Leak Detector LDR-20

Domestic Offices and Service Network

- Headquarter & Overseas Sales Group: Chiyoda-ku, Tokyo
- Technical Development & Training Center: Niiza, Saitama
- 8 Regional Domestic Sales Offices

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Worldwide Sales and Service Network

More than 50 distributors (over 60 countries) all over the world

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FUJITECOM ODA History

Year	Country
2025	Fiji, Indonesia, Laos, Pakistan, Tunisia
2024	Fiji, Nicaragua, Tunisia, Indonesia
2023	Fiji, India, Samoa, Saudi Arabia
2022	Ethiopia, India, Saudi Arabia, South Sudan
2021	Kenya, Philippines
2020	Malawi, Sri Lanka
2019	Malawi
2018	Bosnia-Herzegovina, Myanmar, Sri Lanka
2017	Kenya, Nicaragua, Palau, Rwanda, Samoa
2016	Bosnia-Herzegovina, Iran
2015	Brazil, Nigeria, Samoa, Solomon, Tanzania
2014	Egypt, Guinea, Jordan, Pakistan, Papua New Guinea, Solomon, Sudan, Tajikistan, Tanzania, Vietnam
2013	Egypt, Indonesia, Myanmar, Pakistan, Paraguay, Solomon, Tanzania
2012	Egypt, Indonesia, Paraguay, Peru, Solomon
2011	Bangladesh, Egypt, Iraq, Kenya, Paraguay, South Africa, Sudan, Tanzania
2010	Brazil, Cambodia, Kuwait, Sri Lanka
2009	Egypt, El salvador, Sri Lanka
2008	Egypt
2007	Egypt

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FUJITECOM Development and Training Center

Training site

Buried Pipe Materials:
CIP/GP/LP/PVC/PE

1. Pipeline Operation / Maintenance and Leak detection
2. Introduction of survey equipment
3. Technical instruction of survey instruments
4. Comparison of various leak types & site conditions

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When a Large Water Leak Occurs...

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Outline of Water Leak Detection Procedure

Setting and Survey of 'Area'

(Grasp priority area)

Which area?

Survey of 'Line'

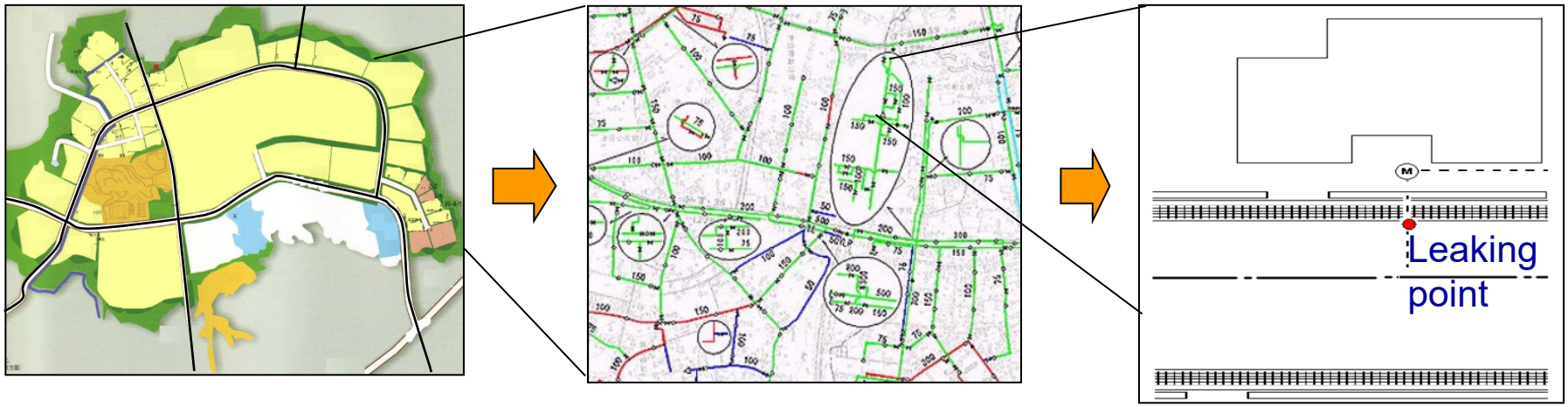
(Sort out defective pipelines)

Which pipeline?

Survey of 'Point'

(Pinpoint leaking point)

Leaking point



By narrowing from area → line → point, you can efficiently detect water leaks.

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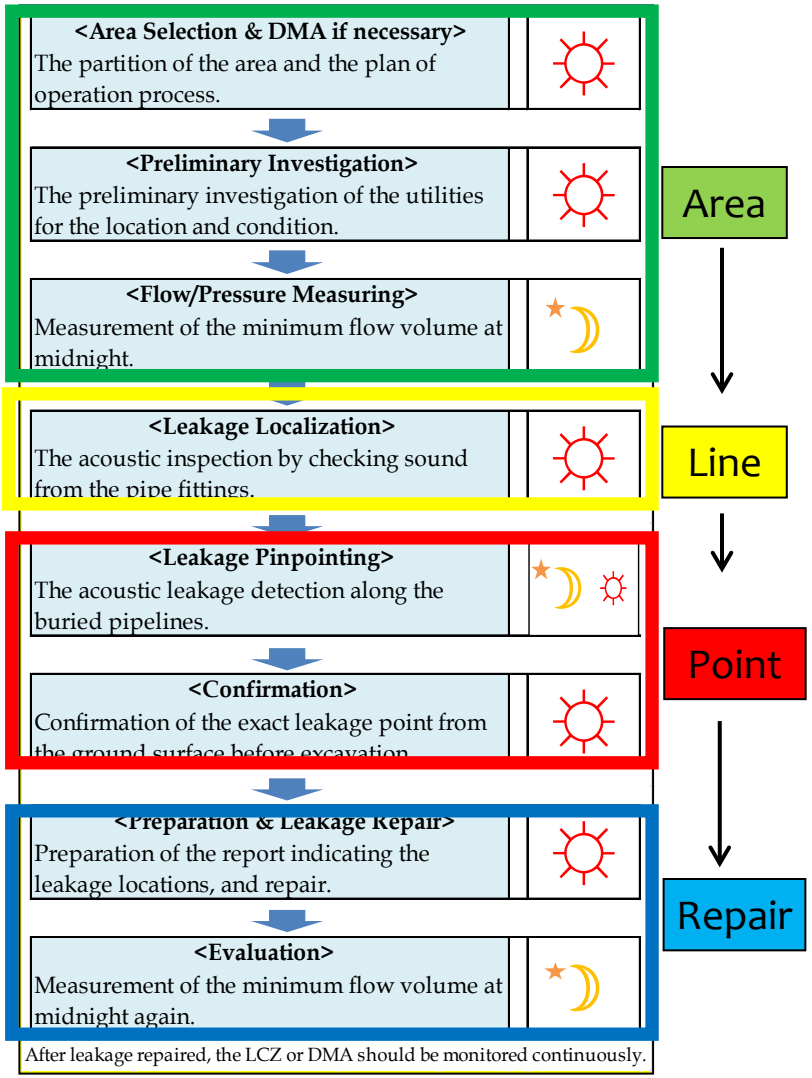
Workflow of Water Leak Detection



'Area' phase
- Pipeline locating
- Flow / Pressure measuring

'Line' phase
- Specifying leakage pipeline

'Point' phase
- Pinpointing leaking point
- Investigation before excavation

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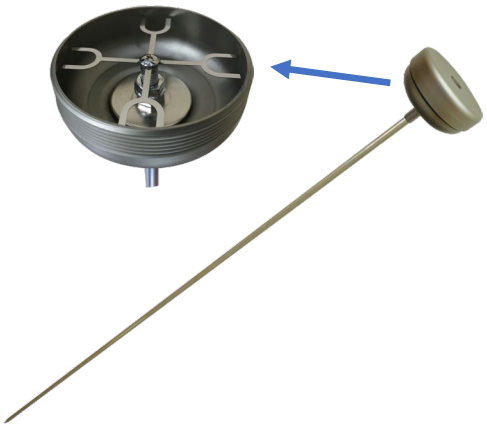
Devices for ‘Specifying Leakage Pipeline’

Listening Stick LSP Series

It is used to check for abnormal noise propagating in the pipeline. Check the sound of water leaks and the wetness in the ground by touching the valve or inserting it into the hole drilled with a boring bar (described later).

Listening Stick LSX-Pro Series



Same as LSP-Series, this is a tool to be used to look for pipe with leakage.
The tuning fork built into the cup provides better sound quality than the LSP series especially for non-metallic pipes.

Digital Sound Detector FSB-8D

An electronic listening stick that captures a weak leak sound and discovers the leak by comparing the sound with the numerical value. By installing a analyzing unit, automatic judgment and recording of judgment results are possible.

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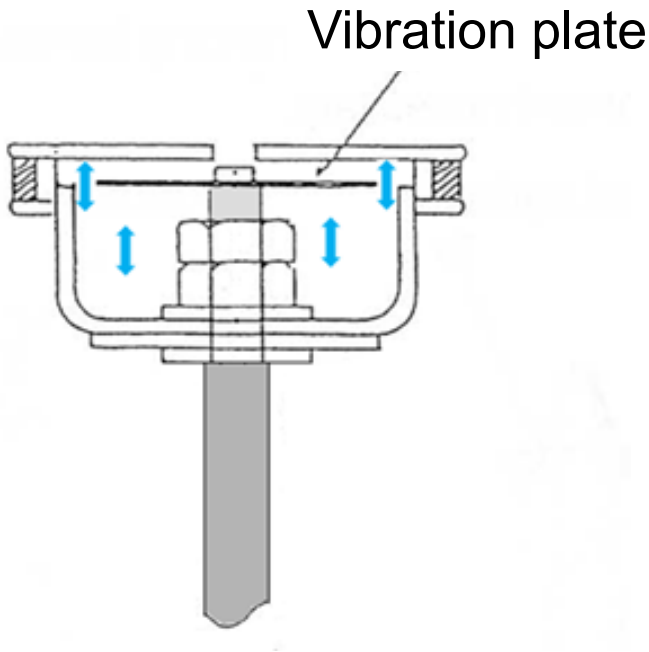
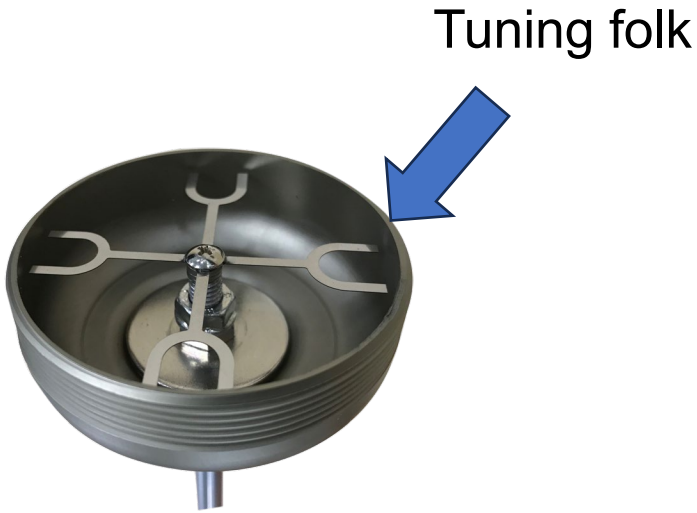
Construction of Listening Stick (LSP series)



The Fuji Floating System (vibration plate) makes the volume louder.

The compact design makes it easy to work over long distances without getting tired.

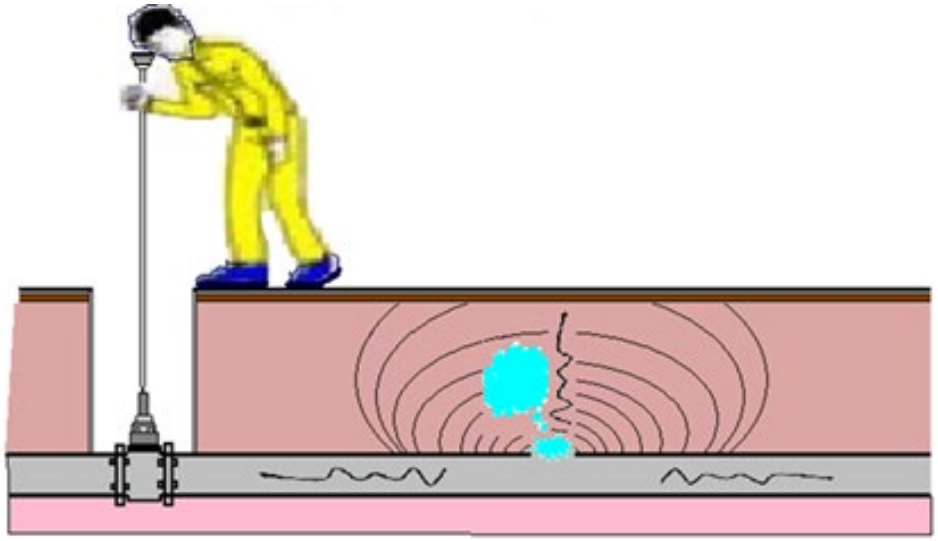
Construction of Listening Stick (LSX-Pro series)



Sensitivity has been improved by tuning folk, making it easier to detect leak sounds propagating through vinyl pipes.

Significantly improved strength of the bar and cup parts.

Check the Sound at Valve or Fire Hydrant



“Shee” or “Huee” sound is heard from the listening stick when water leak is on the target pipe.

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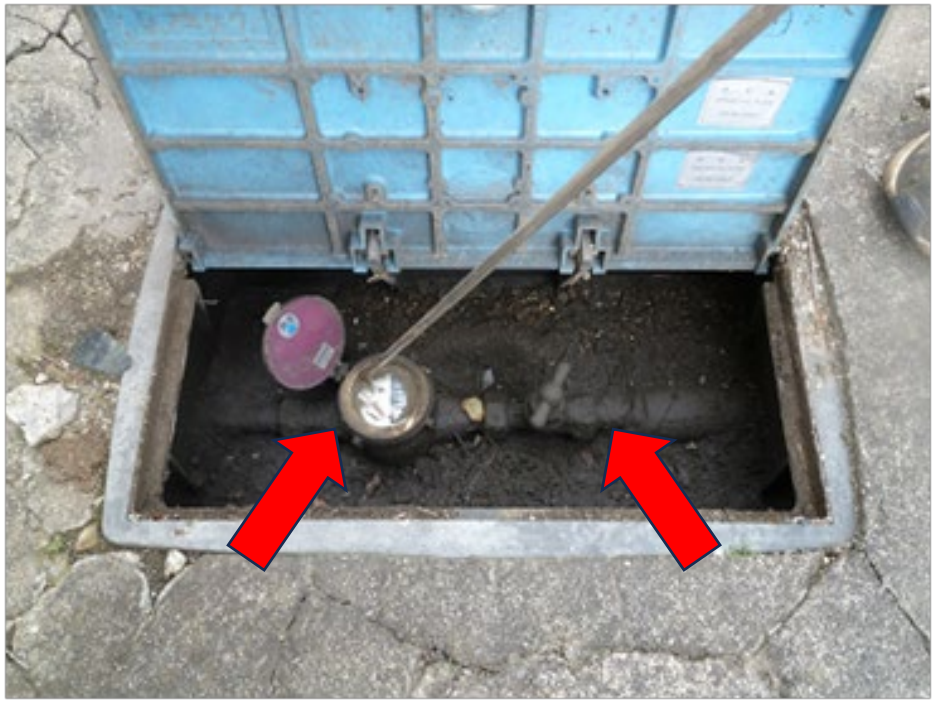
Check the Sound at Customer Meter



Put the tip of listening stick to metal part of meter/pipe

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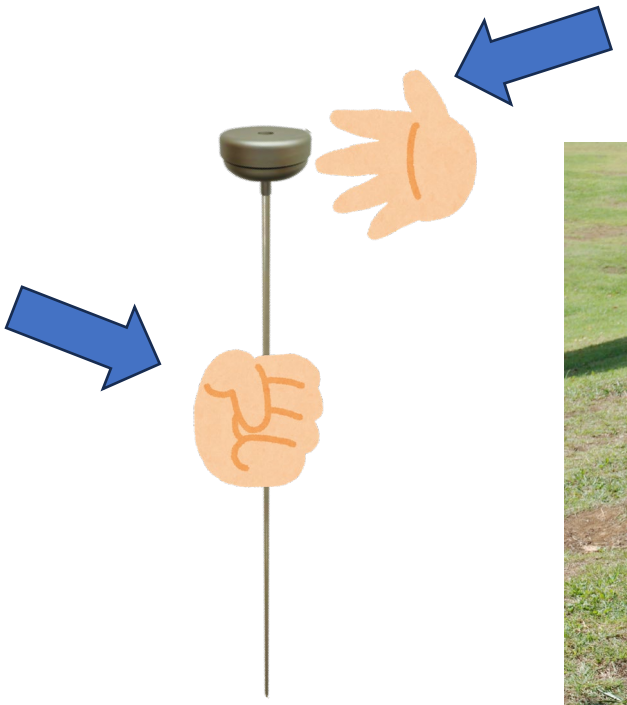
Tip for how to use Listening Sticks



When you detect leakage with listening stick, **DO NOT** hold bar part.
It will prevent sound vibration reaching to cup part/ear.
Hold the cup and cover the ear on the other side as shown in the photo on the right

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Digital Sound Detector FSB-8D

The amplifier makes the sound louder even through non-metallic pipes such as PE, PVC, and PP.

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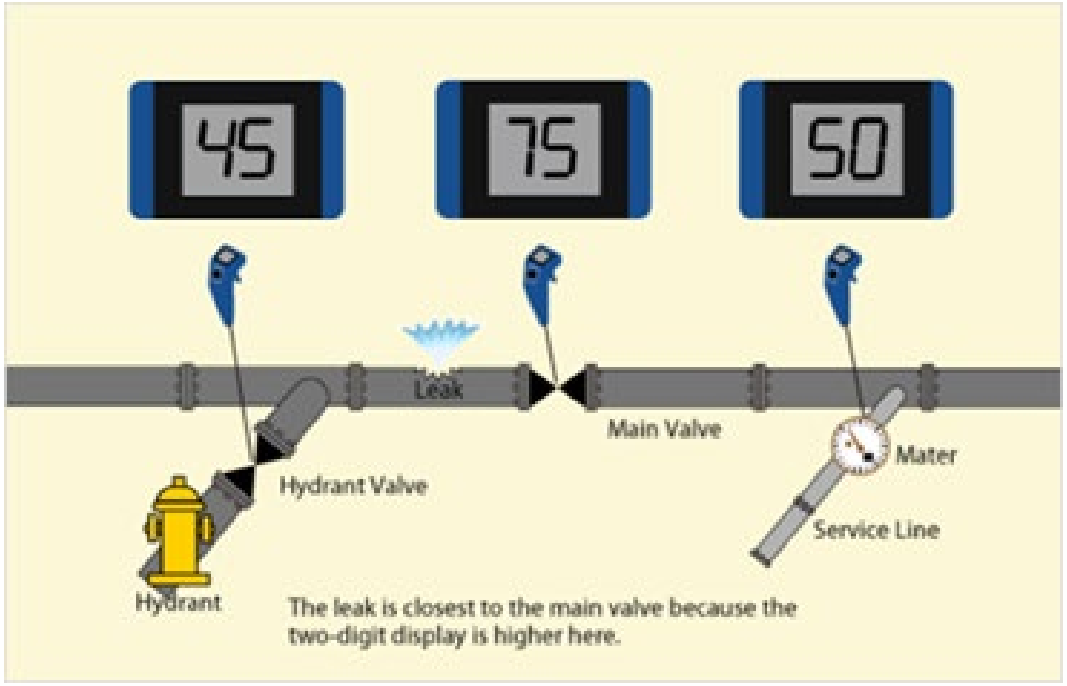
Digital Sound Detector FSB-8D



FSB-8D displays the sound level numerically.

※. It shows the voltage value measured at the earphone jack, not the volume of the leak.

Devices for ‘Pinpointing Leaking Point’

Digital Noise Reduction
Water Leak Detector
DNR-18

Equipped with a noise reduction digital filter, leak detection can be performed regardless of the noise that interferes. Leakage sound level values at 250 points can be recorded and graphed with attached software.

Water Leak Detector
LDR-20

A leak detector with significantly improved sensitivity. The small and light design reduce the work load for a long time. By adopting universal design, pick-up sensor can be connected to either left or right. Data display and report output are possible with an attached application.

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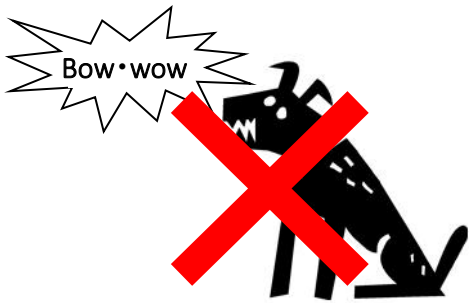
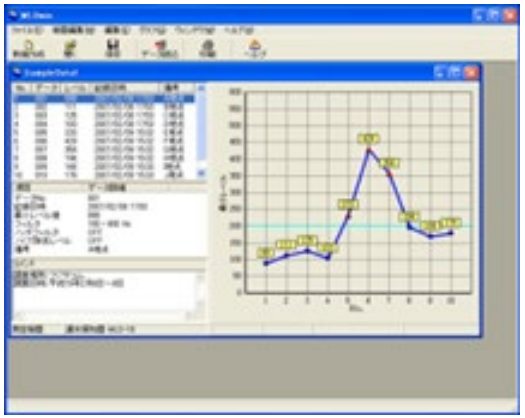
Digital Noise Reduction Water Leak Detector
DNR-18





1. Digital Noise Reduction
Main amplifier reduce intermittent noise (footsteps, traffic noise, etc.)

2. Noise Level Recording
Noise level data is saved on the main unit and PC, projected on graphs.

3. Large LCD screen

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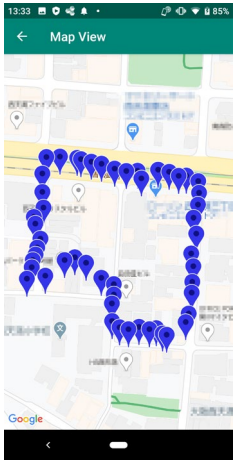
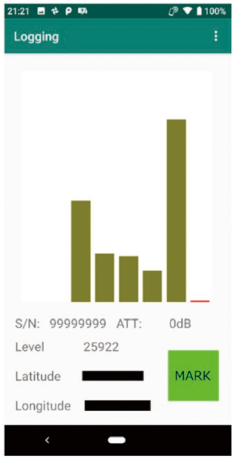
Water Leak Detector LDR-20

1. Light and Compact design
You won't get tired even when working over long distances.





2. Connection with smartphone
It can display survey tracks, bar graphs, and create reports.

Data Logger Report 作成日 2020年 06月 15日

NO	model	S/N	date	Lat.	Lon.	level	ATT[dB]	MARK
1	LDR-20	99990006	2020/06/15 10:43:32	35.698552	139.776319	8724	0	
2	LDR-20	99990006	2020/06/15 10:43:36	35.698513	139.776318	9455	0	
3	LDR-20	99990006	2020/06/15 10:59:50	35.698511	139.776320	7979	0	*
4	LDR-20	99990006	2020/06/15 11:00:03	35.698524	139.776332	9592	0	
5	LDR-20	99990006	2020/06/15 11:00:05	35.698527	139.776327	6152	0	
6	LDR-20	99990006	2020/06/15 11:00:12	35.698527	139.776327	8332	0	
7	LDR-20	99990006	2020/06/15 11:00:14	35.698527	139.776327	8932	0	
8	LDR-20	99990006	2020/06/15 11:00:15	35.698521	139.776318	9356	0	
9	LDR-20	99990006	2020/06/15 11:00:23	35.698521	139.776318	4	0	
10	LDR-20	99990006	2020/06/15 11:00:25	35.698491	139.776312	9596	0	

3. Reverse display
The switch can be held on either the left or right side.

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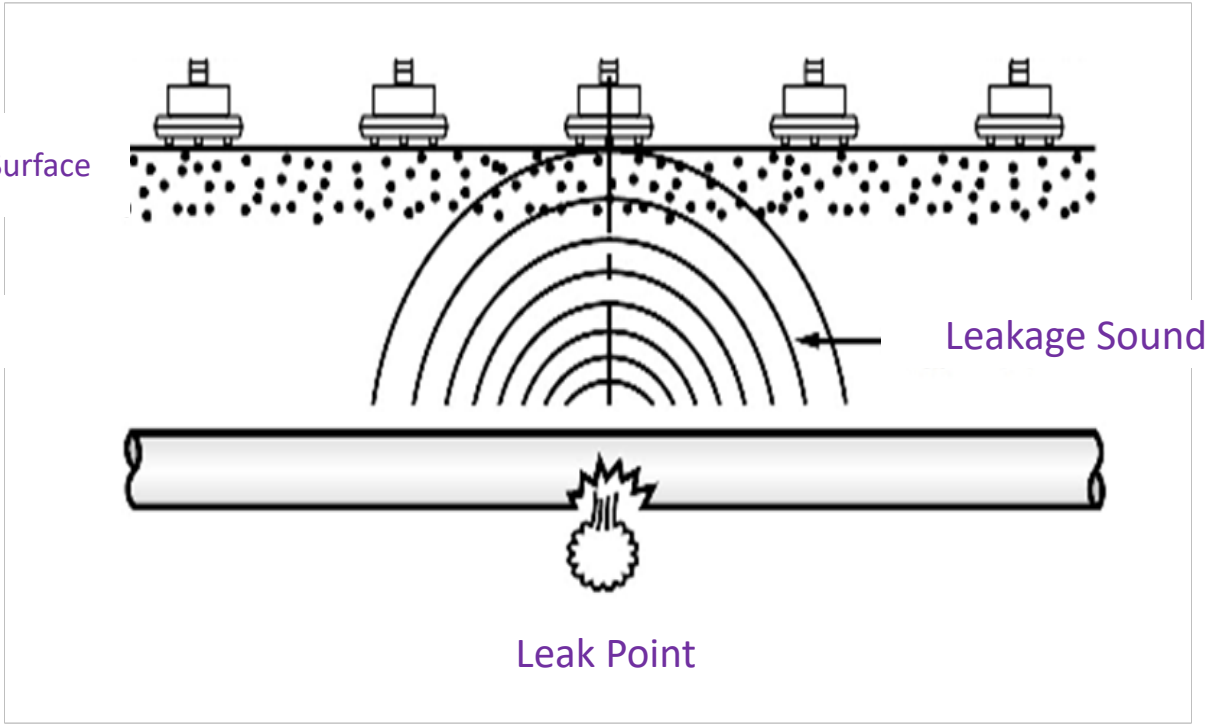
Ground Microphone Survey and Surface Types



Loudest point = Leak point

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Ground Microphone Survey and Surface Types

Easy → Difficult

(Surface Type)

Asphalt　Concrete　Tiles　Soil　Sand　Grass

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Devices for ‘Investigation before Excavation’

Boring Bar
BB-1.0
BB-1.5

Drive up to the close point of the pipeline and make a hole for the listening stick.

Listening Stick
LSP Series

Apply it to a valve plug or insert it into a hole drilled with a boring bar, and check for water leakage and wetness in the ground.

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Monitoring system under development

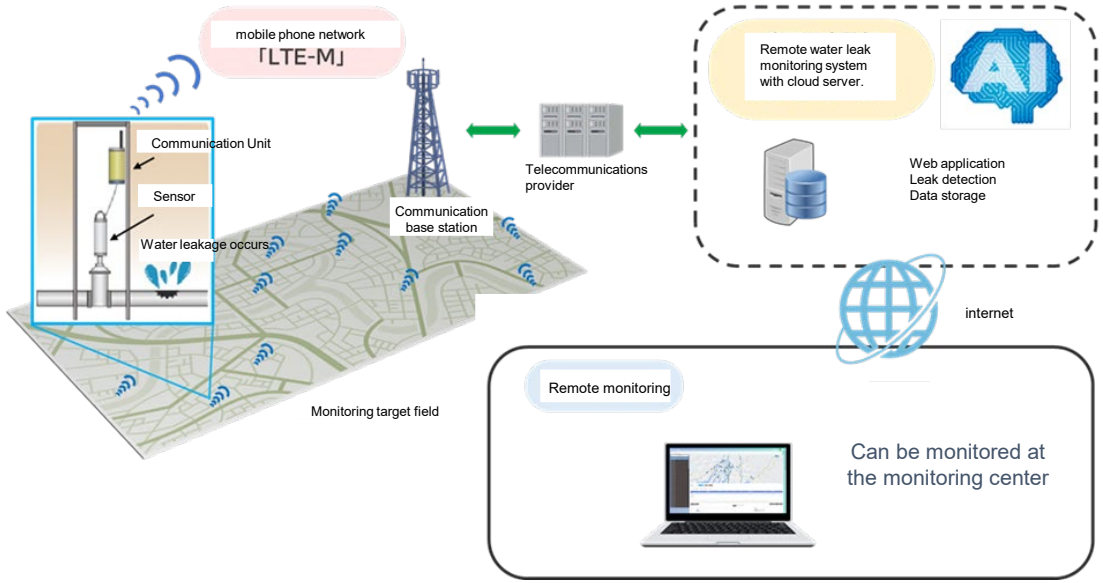
IoT x AI x Mobile
will change the future of infrastructure management

✓ **Remote Monitoring**
Daily Leakage Monitoring

✓ **High-Sensitivity Detection**
Leak detection is difficult to perform manually.

✓ **Cloud AI Analytics**
LTE x High-Accuracy Water Leak Detection

✓ **Remote Support**
Check the status from monitoring center



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Thank you
for your attention!

Contact

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