FUJI WATER LEAK DETECTOR

LD-7

INSTRUCTION MANUAL





WARRANTY

The Fuji Tecom LD-7 Leak Noise Detector is guaranteed for 12 months from the date of purchase from the agent or distributor. The warranty covers replacement or repair with no charge providing the unit has not been damaged due to misuse.

CAUTION

The following actions should be avoided as they may affect warranty claims and be detrimental to equipment performance.

- Do not allow water to enter the amplifier.
- Do not open the amplifier casing.
- Avoid excessive shock to the amplifier and sensor.
- Do not leave the amplifier in direct sunlight.
- Ensure replacement batteries are installed correctly.
- The equipment is battery operated and is not suitable for use with an external power source.

LD-7 COMPONENTS

- ① On/Off volume control knob. Push for lamp.
- ② Battery condition lamp.
- ③ Illumination lamp.
- 4 Handset, (Amplifier casing)
- (5) Mute switch.
- 6 Sensor cable.
- Ball. Reduces wind noise from the cable. Patent Pending *08/876,095; *9711760.0; *9-135163

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- Sensor
- One eighth jack plug.
- ① Headphones. 20ohm impedance.

Diagram of Components.



OPERATION

The LD-7 is a compact, lightweight water leak detector which is simple to operate and with good output characteristics enabling operators to pinpoint leak locations.

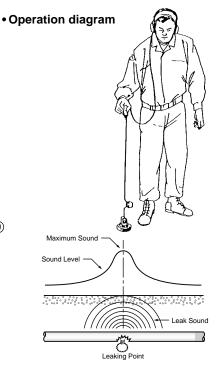
- Insert the Headphone jack plug into the socket in the handset.
- 2. Switch on the power with the ON/OFF Volume control on the handset.
- 3. Check the battery condition.
- Place the sensor on the ground. Press the "Mute" switch and adjust the volume control until an acceptable sound level is heard.
- 5. Without adjusting the volume control, release the Mute switch and move the sensor to a new position. Depress the Mute switch and compare the sound level at this position to the sound at the first position.
- Repeat the above process until the maximum sound is detected. The maximum sound indicates the location of the leak.

Contact Rods

The contact rods are used to assist detection of leak noise in soft ground, or to survey stop taps or accessible pipe fittings.

Lamp

To operate the lamp, turn power on and press the ON/ OFF Volume control knob.



BATTERY CONDITION

Good battery condition is indicated by continuous battery indicator lamp. (red)

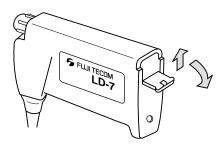
Battety low is indicated by "flashing" battery indicator lamp. (red)

Battety "dead" condition is indicated by no output from the battery indicator lamp.

BATTERY CHANGING

When the battery output is low.

- Turn the power switch OFF and disconnect the headphones.
- Open the battery compartment by sliding the cover upwards and remove the old batteries.
- Insert two new batteries (UM3/AA) ensuring the polarity is as indicated on the handset casing.
- Close the battery compartment and reconnect the headphones.
- Turn the power switch ON and check the unit.



LEAK NOISE

Leak noise from a buried pipe consists of four components of sound.

- 1. Flow sound
- 2. Impact sound
- 3. Friction sound
- 4. Oscillation sound

This combination of sounds produces characteristic "leak noise" which is affected by the site conditions:-

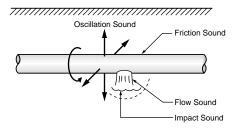
- 1. The size and shape of the hole
- 2. Water pressure
- 3. Soil condition
- 4. Pipe material
- 5. Surface condition. (pavement/tarmac/soft ground)

Other sounds also affect the detection of "leak noise"

- 1. Consumer draw-off
- 2. Drainage flow noise
- 3. Traffic noise
- 4. Wind noise
- 5. Background noise. Transformers, electric motors, air conditioning etc

The LD-7 is designed to give high gain and response in the frequency range 100 to 1000Hz which covers the frequency characteristic of most components of leak noise.

The detection of leak noise is dependent on the skill of the operator and it is essential that operators become familiar with the characteristic "leak sound".



INSPECTION CERTIFICATE

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SERIAL No :				
careful attent		Fuji interoffice ins	d the above instrun pection standard co	
(1) EXTERN	AL APPEAR	ANCE ·····		-
(2) MECHAN	NICAL WORK	ζ		
* Knob, lev	er & key *Co	onnector * Joint		
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(4) OPERAT	ION ON TEST	Γ SITE		
* Distance		*Level *Deptl		
Inspected by:				

Distributed by:		

Manufactured by:



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