

FISHER RESEARCH LABS


XLT-100


Compact Acoustic Leak Detector





Operating Manual

OPERATION

To use the XLT-100, power device on, place headphones over ears and press metal tip to the utility. Before the tip makes contact, mute the XLT-100 using the  button; the tip making contact can produce a loud sudden bump sound. The XLT-100 amplifies vibrations in the object for listening and displays the average sound/vibration level as a number between 0 and 99.

OPERATION CHART	
Power On	Press & Hold power button for approx. 2 seconds, then release.
Power Off	Press & Hold power button for approx. 2 seconds, then release.
LCD Display	Displays vibration level in default setting. Shows volume when volume is increased or decreased. Shows filter selection when filter mode is selected. Shows notch selection when notch mode is selected. Shows mute state. Shows battery state.
Volume	Increase or decrease volume using up and down buttons in default mode. Level 99 is max volume, 0 is mute or min volume. After 1.5 seconds, if neither up nor down button is pressed, display reverts to vibration level.
Mute	Toggle mute using mute button.
Filter	Press mode button in default mode to enter filter selection mode. Use up/down buttons to select filter. 0 --- 40 Hz to 8 kHz, default, (all pass) 1 --- 0.5 kHz center frequency (boost) 2 --- 1 kHz center frequency (boost) 3 --- 2 kHz center frequency (boost) 4 --- 4 kHz center frequency (boost) 5 --- 0.5 kHz center frequency (cut) 6 --- 1 kHz center frequency (cut) 7 --- 2 kHz center frequency (cut) 8 --- 4 kHz center frequency (cut) Press mode button again to exit filter selection mode, and enter notch filter mode.
Notch	Press mode button in filter mode to enter notch mode. Use left/right buttons to select filter. 00 --- No notch filtering 50 --- 50 Hz notch filtering 60 --- 60 Hz notch filtering
Back Light	Press  to toggle through illumination levels.

POWER

To turn on the device, press-and-hold  for approximately 2 seconds, then release. To power the device off, press-and-hold  for approximately 2 seconds, then release. When muted, the XLT-100 will power off automatically after 5 minutes.

MODES



Level Mode

(Default on power-up)

In this mode, the XLT-100 displays the sound/vibration level. No mode indicator is displayed in this mode.


VOLUME MODE

In this mode, the user can increase or decrease volume levels.


To enter Volume Mode, press the  or  buttons when in Level Mode. The VOL mode indicator will be displayed.

The numeric display indicates the current volume level as a number between 0 and 99. After 1.5 seconds with no volume adjustments, the device will automatically revert to Level Mode.


FILTER MODE

To enter Filter Mode, press . The FLT mode indicator will


be displayed.

In Filter Mode, the user can select from 8 different boost/cut equalization filters with center frequencies at 500, 1000, 2000 and 4000 Hz. The boost filters emphasize frequencies around the center frequency. The cut filters will de-emphasize frequencies around the center frequency. Alternatively, the user can select the all-pass filter, filter number zero, which is the default filter. To exit Filter Mode, and enter Notch mode, press .


NOTCH MODE

To enter Notch Mode, press  until "NCH" is displayed. In Notch Mode, the user can select the 50 Hz notch filter, the 60 Hz notch filter or no notch filter. When using a notch filter the "notch" frequency will be filtered out.

MUTE

Turn off the volume by pressing . Use this mute function to protect your ears from loud sounds during set-up.

BACKLIGHT

Press  to turn backlight on or off.

BATTERIES

The XLT-100 uses two AA batteries. Operating life using 2 AA alkaline batteries is approximately 12-15 hours.

When charge indicator becomes low, batteries should be replaced. The XLT-100 will automatically turn off if the battery voltage becomes too low. To replace old batteries, use a coin or flat-head screw driver to turn the battery cap counterclockwise until it comes off. The XLT-100 has special foam inserts in the battery compartment; these inserts may prevent batteries from sliding out. If this happens, gently tap the bottom of the XLT-100 on a flat surface, and batteries will dislodge.

EXTENSION RODS

Included extension rods (2-13") May be used in place of standard probe tip when longer reach for contact with facility is required. Extension Rods can also be inserted into probe holes over water line in turf areas.

HAND NOISE

Like all accelerometers, contact microphones, ground microphones and stethoscopes, hand movement on the surface of the housing will induce

vibrations into the sensor which you will hear as a rubbing noise. To avoid this, hold housing securely and do not move hand over the surface while listening.

SOME POTENTIAL HAZARDS

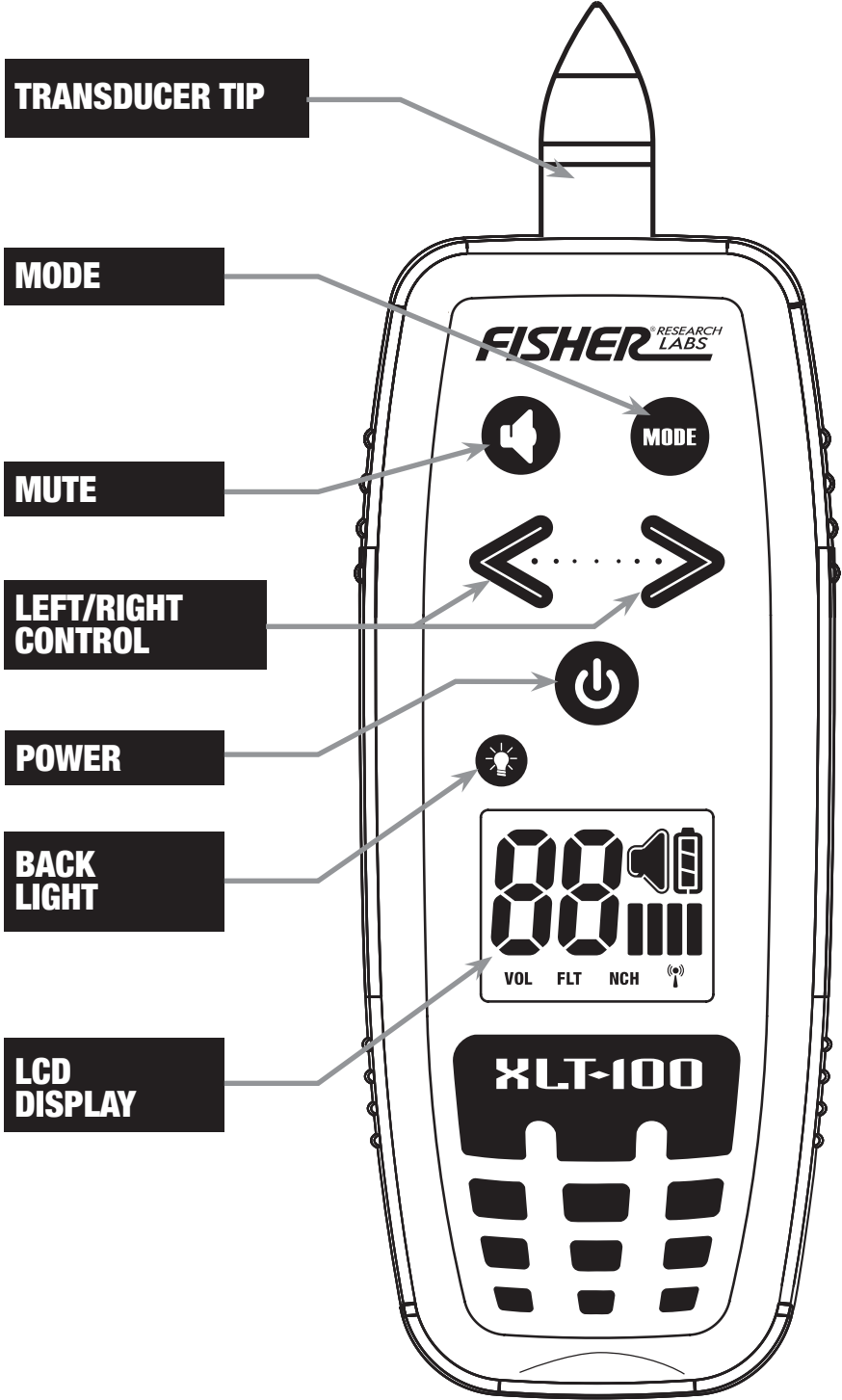
As the sensor and extension rods are "pointed"; caution should be used when operating or transporting the device.

Always select the lowest volume setting that is appropriate for each leak sound analysis.

It is recommended to set device to MUTE until positioned to sample for leak noise, then set to OFF or MUTE immediately after each sampling.

For safety reasons, do not use this device near traffic or where other dangers are present. This device is to be used with interconnecting cables/headphone cables shorter than three meters.

Fisher Research Laboratory does not warrant suitability to specific use. Fisher Research Laboratory shall in no event be liable for any direct, incidental, consequential or indirect damages.



COMPLIANCE

FCC Class B Notice

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.**

Class B Devices

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/ TV technician for help.

ICES-003 Class B Notice

This Class B digital device complies with Canadian ICES-003(B)/NMB-3(B).

EU Declaration of Conformity

Hereby, Fisher Research Labs®, declares that the XLT-100 Compact Acoustic Leak Detector complies with the EMC standards under Directive 2014/30/EU.

EN 61000-6-1

EN61000-6-3



2-YEAR LIMITED WARRANTY

This Fisher instrument has been rigorously tested before shipment. Fisher Research Laboratory (FRL) warrants this instrument to be free of manufacturing defects for a period of 2 years after the original date of consumer purchase. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state. During the warranty period, FRL may elect to repair or replace a defective instrument, free of charge, return postage excluded.

This warranty excludes headphones, all batteries and damage caused by battery leakage regardless of the type of battery used. Also excluded is damage caused by wear, misuse, alterations and negligent handling or any abuse, which in the opinion of FRL, caused the failure.

This warranty is void in the event any unauthorized person opens or repairs the instrument.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. FRL DOES NOT WARRANT SUITABILITY TO SPECIFIC USE. FRL SHALL IN NO EVENT BE LIABLE FOR ANY DIRECT, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES.

This warranty is non-transferable.

Maintain proof of purchase. Proof of purchase must accompany warranty claim. Should warranty service become necessary, contact FRL for the name of the nearest authorized Fisher Repair Center or call 915-225-0333 for return authorization. Please include your dated proof of purchase and a complete description of the problem.

NOTE TO CUSTOMERS LOCATED OUTSIDE U.S.A.

This warranty may vary in other countries; check with your distributor for details.

Warranty does not cover shipping costs.

Proof of purchase is required to make a claim under this warranty.

Not to be used with conductive tracing cables longer than 6.5' (1.98 m)



QUALITY

Fisher detectors are renowned for their quality.
Each detector is handcrafted in the USA with pride.

PERFORMANCE

The worldwide underground utility industry relies on Fisher.
Our instruments are durable, dependable and locate deeper.

REPUTATION

Fisher produced the first patented metal detector in 1931. For
over 85 years, the Fisher logo has been a mark of excellence.

SERVICE

Should you have any questions or problems, contact:

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