

FISHER[®] RESEARCH
LABS

XLT-100

OWNER'S MANUAL



**FISHER
RESEARCH LABS**
SINCE 1931
www.FisherLab.com

Table Of Contents

<u>Operation</u>	3
<u>Power</u>	4
<u>Modes</u>	4
<u>Volume Mode</u>	4
<u>Filter Mode</u>	4
<u>Notch Mode</u>	4
<u>Mute</u>	5
<u>Backlight</u>	5
<u>Batteries</u>	5
<u>Extension Rods</u>	5
<u>Hand Noise</u>	5
<u>Some Potential Hazards</u>	5
<u>Control Panel Overview</u>	6

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. Increase or decrease volume using up and down buttons in default mode.
Volume	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
Power Off	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 or 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.

Control Panel Overview



SPECIFICATIONS

Weight	0.6 lbs
Length	8 in
Width	2.625 in
Depth	1.125 in
Operating Frequency Range	40 Hz to 8kHz
Gain	60 dB
Filter Bands	4
Center Frequencies	500, 1000, 2000, 4000 Hz
Filter Boost/Cut	18 dB
Output Indication	Audio & Visual (0-99 linear scale)
Volume Control	0-99 (log scale)
Headset Impedance	100 Ohms
Headphone Type	Full-size, over-ear isolating
Power Supply	2 AA Batteries
Battery Life	12-15 hours @ 50% Volume
Display	Numeric LCD
Notch Filtering	50 Hz & 60Hz
Unit Dimensions	8" x 2.625" x 1.125"
Case Weight	4.6 lbs
Case Dimensions	17" x 12" x 6"
Standard Equipment	Protective Hard Case, Extension Rods
Backlight	Yes



WARRANTY

This product is warranted against defects in materials and workmanship under normal use for two years from the date of purchase by the original owner. Liability in all events is limited to the purchase price paid. Liability under this warranty is limited to replacement or repair, at our option, of the product returned, shipping cost prepaid, to Fisher Research Labs. Damage due to neglect, accidental damage, misuse of this product or normal wear and tear is not covered by the warranty.



• **Phone**

+1 (800) 685-5050



• **Message**

contact@frsttx.com



• **Website**

www.Fisherlab.com



• **Address**

1120 Alza Drive El Paso, TX 79907



• **Text**

+1 (844) 674-1777



• **WhatsApp**

+1 (915) 633-8354



MADE IN THE USA

FROM USA AND GLOBAL COMPONENTS

FOLLOW US ON SOCIAL MEDIA

