

## Background

The ES-300 Electronic Stethoscope is an instrument that reproduces body sounds with low-noise and high-amplification, providing a new level of clarity. It provides control of the listening process, the ability to see and hear heart sounds while recording an ECG or other cardiac parameters. The ES-300 has a variety of modes to make listening to body sounds simple and easy to use.

Three easy-to-use controls provide Power on/off, Amplify on/off, and Bell/Diaphragm selection, with mode changes at the push of a button. Additional features are available and provide useful functions when needed, but do not interfere with the easy-to-use main functions of the ES-300.

## Features

**Amplification** - With over 100X amplification compared to a typical acoustic stethoscope, One's small form hides an extraordinary power to reproduce heart sounds with the punch of a rock drummer or a hip-hop track.

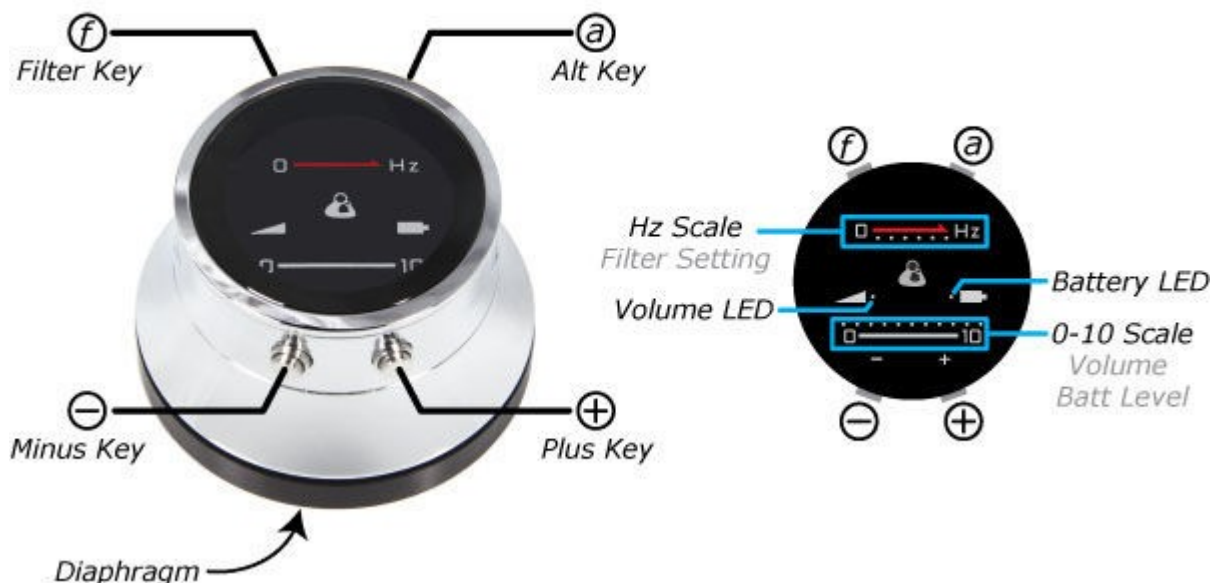
**Audio Filter System** - Multiple filters give you control over the sound with far more nuance than the blunt instrument of a "bell" or "diaphragm". You can also limit bandwidth to exclude ambient noise.

**Rechargeable Battery** - A Lithium Ion battery gives you the battery life you need in a compact device. Charging is made convenient and easy, using a standard USB style charger.

**Patented Transducer** - Thinklabs has built its reputation on technology that maintains the timbre and tactile sense of an acoustic instrument, with the clarity and power of electronics.

## Control and Display

### Controls & Display



Four keys control Volume, Filter Selection and other functions.

Briefly:

- Hold any key to Turn On.
- Hold (a) & (-) to power off manually.
- Volume: Use (+) and (-).
- Filter: Click (f) rapidly to switch between

2 "favorite" filters. Hold (f) longer to sequence through all filters. Any current selection becomes a "favorite".

The Display shows:

- Volume on 0-10 scale.
- Filter selection, indicating low, medium or high range.
- Battery Level (scrolls across 0-10 scale when One turns off).
- Battery Low Level warning or Charging.

## Power On - Off

Push ANY key to turn on your One stethoscope

### Manual Shutoff

To manually turn off your stethoscope, simultaneously push and hold the "-" key AND the "Alt" key. After 2 seconds, the battery level indication will flash across the 0-10 scale display and you can release the keys.

### Automatic Shutoff

Your One is programmed to automatically shut off after a preset time. The factory default is 2 minutes, and you can change this to a range of 1-10 minutes. See Auto Shutoff Programming.

### Constant On (no auto shutoff)

You can also DISABLE the automatic shutoff. This is not advisable for normal clinical use, but is useful for longer term recordings. Constant On mode will keep the stethoscope on until the battery is discharged, at which time, it will shut off.

## Power - Auto Shutoff Time Programming

You can set the Auto Shutoff time to be from 1-10 minutes. You can also disable Auto Shutoff. To program Auto Shutoff:

# Tech Note

## ES-300 Electronic Stethoscope



1. Turn on One by pressing any key.
2. Click the Alt Key to indicate the number of minutes you'd like to program for Auto Shutoff. If you'd like a 1-minute Auto Shutoff time, click once; for 2 minutes, click twice; for 10 minutes, click 10 times. **DO NOT CLICK MORE THAN 10 TIMES** if you want Auto Shutoff to operate.
3. Now Push and Hold the Alt Key until the One shuts off. This will take about 15 seconds. Your One is now programmed.

### Constant On Mode - Disabling Auto Shutoff

Perform the same procedure as above, but Click the Alt Key **AT LEAST 11** times in Step 2.

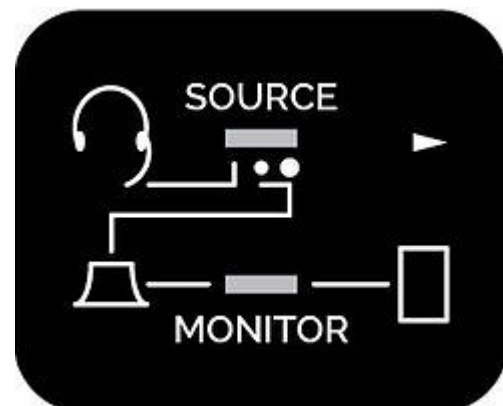
## General Maintenance and Cleaning

- Do not immerse your One electronic stethoscope in any liquid. If One is inadvertently immersed in liquid, do **NOT** Power ON the unit. Completely dry out the inner spaces before trying to use the stethoscope again. Contact Thinklabs for assistance.
- Do not sterilize One using any sterilization process.
- Wipe your One with alcohol swabs or a soft cloth moistened with alcohol or water. Do not use abrasive cleaning agents, and do not allow fluids to enter the device.
- Avoid extreme heat, cold or humidity for either storage or use of this device. -4F to 110F (-20C to 43C) storage. Room temperature is recommended for use. Note that closed vehicles reach well above 120F in summer.
- Avoid excessive force applied to any part of the stethoscope. Damage could result.
- Avoid dropping the One on hard floors, especially concrete. Damage could result.
- Fully charge battery if stethoscope is not to be used for a period of months.
- Damage resulting from inappropriate care of the device may compromise product performance or void the Warranty.

## Connecting the ES-300 to the iWorx Recorder

- a. Set the SOURCE switch to the MIDDLE position.
- b. Set the MONITOR switch to the left.

- (1) Connect Headphones to the upper left jack.
- (2) Connect ES-300 to the lower left jack via the long male-male cable supplied.
- (3) Plug the headphone to DIN8 cable to the lower right jack



# Tech Note

## ES-300 Electronic Stethoscope



Set the Source switch to the center or right position. The center position reduces the signal level to the recorder. You may also find that reducing the ES-300's volume level to a 0 to 2 range is necessary during recording, to reduce clipping and distortion.

