

# Specifications

## Son-Tector Ultrasonic Detector

Item	Specification	Comment
Warranty	LIFETIME	Units purchased after September 1, 2003
Previous warranty	Two year	Units purchased before September 1, 2003
Frequency range	35Khz to 45 Khz	Sound generated by leaks and malfunctions occur in this range. Wider range increases cost and complexity for no practical benefit.
Circuitry	Solid state analog	Sturdy, reliable
Sensitivity	.5cc/sec. (air at sea level)	Showing relationship between distance from leak and leak size.
Battery	9 V	Easy to obtain. Batteries tend to be replaced due to age rather than from usage. (Estimated life ~100 hours at partial volume. 12 hours at full volume.)
Display	Analog meter	Sturdy, reliable, easy to read in any light.
Audio output	100-5000cycles	(1) Built in loudspeaker for low background noise situations. (2)Padded, comfortable headphones for noisy background situations.
Base unit dimensions	6.5 x 4.5 x 1.75 inches	Hand held or clipped to belt.
Base unit weight	1.2 lbs	
123 package weight	7 lbs.	
Training manual	Instruction sheet included	Unit is easy to use. Read the simple instructions and play with the unit for a few minutes. New users find leaks or malfunctions in minutes.

**Why pay more for features you don't need, or be confused by big words that don't make any difference?**

**Over the years, the manufactures have come to call this topic "BELLS AND WHISTLES".**

Using ultrasonics to locate leaks and mechanical malfunctions is far superior to soap bubbles or stethoscopes. That said, ultrasonics is

not rocket science either! The manufacturers have received phone calls and emails from people asking them about various features that sound impressive, make no difference, or are even a bad idea.

Here are a few of their favorites:

**Hetrodnying** is as common to ultrasonic detectors as wheels are to cars. Hetrodnying is the process by which frequencies are mixed to make pressurized leaks or mechanical malfunctions audible to the human ear.

**Adjustable or Variable Frequency. Calibration.** We find it hard to imagine why anyone would build, or spend the money to buy, a unit that requires increased training time and increased set-up time for no practical benefit. The Sontector is built to hear the ultrasonic noise generated by pressurized leaks and mechanical malfunctions. Adjustment is unnecessary.

**Noise attenuating headsets.** All this means is that cups cover your ears to block out background noise.

**Digital.** The Sontector remains with solid state analog circuits because they are rugged and reliable. Digital is more modern, and is tempting because digital circuits are cheaper to build. For years the manufacturers offered a two year warranty. Now, they confidently offer a LIFETIME WARRANTY because, over 40 years, they have learned a thing or two about building units that hold up in the field. Solid state analog circuitry is dependable.

We are skeptical, and think you should be, too, about ultrasonic detectors that are loaded with features that increase complexity and cost. Why spend more for the unit as well as making a huge investment in training maintenance personnel? The manufacturers have incorporated feedback from the field over the years in order to keep the Sontector dependable and easy to use.

You can pay more and you can pay less. The Son-Tector was in the forefront of ultrasonic detection manufacturing. We will still be here if you have questions or problems down the road.