

## Ultrasonic Leak Detector

### HHLT-1



- ✓ 20 kHz to 100 kHz
- ✓ For Air or Gas Leaks
- ✓ Economical

#### Applications

- ✓ Pressure And Vacuum System Leak Detection
- ✓ Exhaust System Leaks
- ✓ Tanks, Pipes, Leak Testing, Etc.
- ✓ Steam Trap Inspection
- ✓ Gas Leaks In General

Ultrasonic sound (20 to 100 kHz) is generated by turbulence created by air or a gas forced through a small orifice. Ultrasonic sound is very directional in nature and can be used to pinpoint the exact location of the leak point. Leaking air or gas is generally considered to be viscous flow and as the flow velocity increases, the frequency of the ultrasonic sound emitted will become higher. The HHLT-1R amplifies and converts these sounds to frequencies and levels that the human ear can hear. The HHLT-1T transmitter can supply ultrasonic signals for locations where the gas/air leak does not have sufficient pressure to create an ultrasonic sound. This transmitter will allow the ultrasonic detection of cracks and openings.

#### Detection Principle

When a gas passes through a restricted orifice under pressure, it's going from a pressurized laminar flow to low pressure turbulent flow. The turbulence generates a broad spectrum of sound called "white noise". There are ultrasonic components in this white noise. Since the ultrasound will be loudest by the leak site, the detection of these signals is usually quite simple.



HHLT-1R (left) and HHLT-1T (below) are included in the HHLT-1 package, and are both shown smaller than actual size.



### SPECIFICATIONS

#### HHLT-1R Receiver

- Frequency Response:** 36 to 44 kHz (centered at 40 kHz)
- Indicator:** LED and earphone
- Operating Temperature:** 0 to 40°C (32 to 104°F)
- Operating Humidity:** <80% RH
- Storage Temperature:** -10 to 40°C (14 to 104°F)
- Power Supply:** 9V alkaline battery (included)
- Weight:** 125.5 g (4.43 oz)
- Dimensions:** 150 L x 90 W x 50 mm D (5.9 x 3.5 x 1.97")

#### HHLT-1T Transmitter

- Frequency:** 40 kHz
- Indicator:** LED
- Operating Temperature:** 0 to 40°C (32 to 104°F)
- Operating Humidity:** <80% RH
- Storage Temperature:** -10 to 40°C (14 to 104°F)
- Power Supply:** 9V alkaline battery (included)
- Weight:** 93.5 g (3.30 oz)
- Dimensions:** 120 L x 60 W x 38 mm D (4.72 x 2.36 x 1.5")

### To Order

Model No.	Description
HHLT-1	HHLT-1T transmitter and HHLT-1R receiver package

Comes complete with 9V battery and operator's manual.