

# ULTRASONIC INSPECTION SYSTEMS

## MODEL UP100KT COMPREHENSIVE KIT

Includes: **UP100** pistol housing with LED bargraph meter, 8 position sensitivity selection, low battery indicator, scanning module, rubber focusing probe, stethoscope module warble tone generator (**WTG-1**) with battery charger, deluxe noise isolating headset, 9 volt alkaline battery (replaceable), HDPE plastic carrying case and comprehensive instruction manual.



## MODEL UP100SC STETHOSCOPE/ SCANNER KIT

Includes: all of the **UP100KT** but does not include a Warble Tone Generator.

## MODEL UP100STG SCANNER/TONE GENERATOR KIT

Includes: **UP100** pistol housing with LED bargraph meter, 8 position sensitivity selection, low battery indicator, scanning module, rubber focusing probe, warble tone generator (**WTG-1**) with battery charger, deluxe noise isolating headset, 9 volt alkaline battery (replaceable), HDPE plastic carrying case and comprehensive instruction manual.

## MODEL UP100S SCANNER KIT

Includes: all as described above in the **UP100STG** kit but does not include a Warble Tone Generator.

## MODEL UP100C STETHOSCOPE KIT

Includes: **UP100** pistol housing with LED bargraph meter, 8 position sensitivity selection, low battery indicator, stethoscope module, deluxe noise isolating headset, 9 volt alkaline battery (replaceable), HDPE plastic carrying case and comprehensive instruction manual.

### Specifications:

Circuitry: SMD/Solid state hybrid heterodyne receiver

Frequency Response: 20-100 kHz (centered @ 38-42 kHz)

Indicator: 10 segment LED bargraph (red)

Sensitivity Selection: 8 position precision attenuation

Headset: Noise isolating type: double headset wired monophonic impedance; 16 Ω. Over 23 dB noise attenuation. Meets ANSI specifications & OSHA standards

Probes: **Scanning Module (SCM-1)**: Stainless steel unisonic (single transducer) piezo electric crystal type;  
**Stethoscope/Contact Module (STM-1)**: Stainless steel plug-in type with 5.5" stainless steel waveguide;  
**Rubber Focusing Probe**: Shields stray ultrasonic signals & focuses detected signal

Transmitter: Patented warble tone transmission

Response Time: 300 m sec

Power Supply: 9 volt alkaline battery

Operating Conditions: 32°-120°F (0°-50°C); 10-95% non-condensing @ 86°F (30°C)

Dimensions: 5.25" x 2" x 8" (13.3 x 5 x 20.3 cm)

Weight: 11 oz. (.3kg)

Construction: Handheld ABS pistol type ultrasonic processor, stainless steel sensor enclosures

Model	Description	Price
UP100KT	Comprehensive Kit	\$2265.00
UP100SC	Stethoscope/Scanner Kit	\$1839.00
UP100STG	Scanner/Tone Generator Kit	\$1953.00
UP100C	Scanner Kit	\$1413.00
UP100S	Stethoscope Kit	\$1413.00

## Application Selection Chart

APPLICATION ... MODEL	UP100KT	IP100SC	UP100STG	UP100S	UP100C
Pressure & Vacuum Leak Detection	•	•	•	•	
Valve Seat Leak Detection	•	•			•
Exhaust System Leaks	•	•	•	•	
Heat Exchangers/Boilers/Condensers	•	•	•	•	
Steam Trap Inspection	•	•			•
Bearing Testing	•	•			•
Gear/Gear Box Inspection	•	•			•
Wind/Noise/Water Leaks	•		•		
General Mechanical Inspection & Trouble Shooting	•	•			•
Tank/Pipe Leak Testing	•	•	•	•	
Electrical Inspection	•	•	•	•	

# ELECTRONIC STETHOSCOPE



## Features:

- Sound amplification with volume control
- Headset combined with ear defenders to cut out background noise
- Two probe tips, lengths of 30 and 290 mm
- Strong probe body, black ABS moulding
- Weight with 290 mm probe tip, only 300 g
- 9V alkaline battery for about 30 hours of continuous operation
- Instrument case and battery included

The need to eavesdrop on mechanical sounds within machinery is essential to any maintenance department. Mechanical faults can often be heard. The problem is to locate the sound source quickly and accurately in a generally noisy environment. The electronic stethoscope is a sensitive listening stick, for location of all kinds of machinery noise. Valve chatter, tappet noise, piston slap, gear and pump noise and the operation of relays and solenoids are just a few of the many noises that may be traced, amplified and assessed with this device.

Model	Description	Price
ELS-12	Electronic Stethoscope	\$1295.00

# LEAK DETECTION COMPOUNDS

- No residue
- Non-corrosive
- Non-toxic
- Non-flammable



Scientifically formulated to provide instant leak detection results. To locate leaks, simply apply a small stream of leak detection compound towards area being inspected. Compound spreads quickly to provide lasting bubbles or foam at leakage point.

**Model 100** - Ideal for compressed air and gaseous systems testing. Application with a 12-inch extension tube is quick and easy. A viscosity additive ensures adherence to the surface being tested, providing a longer inspection period.

Temperature range: 32° to 200°F/0° to 93°C.

**Model 300** - Formulated for oxygen system testing. Meets Military Specification MIL-L-22567 Type 1. Provides safe, oxygen compatible leak detection results in the location of oxygen leakage. Temperature range: 27° to 200°F/-3° to 93°C.

**Available in 8 oz. squeeze bottles, 12 bottles per case**

Model	Description	Price
100/B	Leak Detection Compound, 1 Case	\$75.00
300	Leak Detection Compound, 1 Case	\$75.00

# AIRFLOW DETECTION POWDER



Here is a quick, easy way to test the safety of a fume hood before using it. Just a squeeze or two of the plastic bottle dispenses a cloud of ultra-fine, lightweight silica powder, which remains suspended long enough to visually check whether or not a fume hood is functioning properly. It is also useful for detecting drafts, leaks and air currents in rooms, ducts and exhaust systems. The amorphous silica powder is inert, non-toxic, and non-flammable, making it a safer method than using smoke-generating devices.

Model	Description	Price
6603N4100	Airflow Detection Powder	\$26.00

# ULTRASONIC LEAK DETECTOR

## Model TMULD-300 Ultrasonic Leak Detection Kit

includes leak detector, transmitter, earphones and headphones, and two types of extensions for leak detection in areas that are tight, dangerous, hot or difficult to access; all supplied in a foam-lined carrying case. Use to detect leaks in refrigeration and air conditioning systems, heating systems, steam traps, compressors and compressed air systems, brake systems on trucks, and leaks in tire and tubes.

## Model ULD-300 Ultrasonic Leak Detector

Conventional leak detection uses a response to a specific gas. An inaccessible or dangerous area or a light breeze can interfere with successful detection. This Ultrasonic Leak Detector solves these problems. When gas is forced through a small opening - a leak in a pressure or vacuum system - an ultrasonic sound is created. This sound is very directional, and this directionality is used to locate the source or leak. This handheld unit is extremely easy to use. Just turn it on and point it in the general area of a suspected leak. High visibility LEDs light up to indicate the strength of a leak signal, and the adjustable sensitivity allows the leak to be pinpointed with great accuracy. The process is fast, accurate and nearly foolproof.



## Model UT-300 Ultrasonic Transmitter

In areas where leaking gases are at low pressure, there may be no ultrasonic sound to detect. This unit allows an area to be artificially "pressurized" with ultrasound, so small cracks and openings can be detected. Particularly useful for checking air leaks around door and window seals and gaskets, water leaks in roofs, leaks in vacuum vessels, and door, trunk and windshield leaks in cars.

## Specifications:

### Model ULD-300 Ultrasonic Leak Detector

Frequency Response: 20 - 100 kHz,  $\pm 3$  dB  
 Sensitivity: Capable of detecting a Freon R12 leak flowing at 8 ml/min under 100 psi  
 Display: High intensity LEDs  
 Power Supply: 9V alkaline battery, 50 hr. life approx.  
 9V carbon battery, 25 hr. life approx.  
 Power Consumption: 18mA @ 9V, LEDs off; 33mA @ LEDs on  
 Dimensions (HWD): 1.6 x 2.6 x 7.7" (41 x 654 x 195mm)  
 Weight: 8 oz (226g) w/ battery

### Model UT-300 Ultrasonic Transmitter

Frequency Output: 40 kHz  
 Display: Power/battery light  
 Power Supply: 9V alkaline battery, 60 hr. life approx.  
 Power Consumption: 8.5 mA @ 9V  
 Dimensions (HWD): 1.6 x 2.6 x 6" (41 x 65 x 153mm)  
 Weight: 5.6 oz (160g) w/ battery

Model	Description	Price
TMULD-300	Ultrasonic Leak Detection Kit	\$598.00
ULD-300	Ultrasonic Leak Detector	\$414.00
UT-300	Ultrasonic Transmitter	\$295.00

# ULTRASONIC LEAK DETECTOR



## Features:

- Complete with Ultrasonic Leakage Detector, Ultrasonic Transmitter, rubber bottle plug with plastic tubing, 1/2" PVC pipe assembly for attaching to top of detector, 9 volt battery, and carrying case for meter and all accessories
- Leakage level is displayed by an LED bargraph and audible sound
- Ultrasonic Transmitter sends a 40 kHz signal which, when detected by the meter, indicates the location and magnitude of a leak
- Locates leaks generated by pressure, vacuum, conduit, water gas or air

## Specifications:

Frequency Response: 20 to 100 kHz  
 Transmitter: Oscillator circuit; crystal time base  
 Frequency: 40 kHz  
 Dimensions: Detector: 10 x 2.8 x 1.1" (225 x 70 x 28 mm)  
 Weight: 2 lbs. 14 oz.

Model	Description	Price
GS-5800	Ultrasonic Leak Detector	\$453.00
GS-400	Ultrasonic Transmitter	\$102.00