ULTRAPROBE® 2000

Analog Ultrasonic Inspection System – the ultimate in ultrasonic inspection and predictive maintenance.



The Ultraprobe® 2000 flexibility and adaptability easily adjusts to meet a wide range of testing demands. This intrinsically safe instrument tests for leaks as well as performs mechanical and electrical inspections.

Flexible - Adaptable Recognizing that every test environment is different, our engineers designed the Ultraprobe with many user-friendly features, which can be adapted to approach virtually any inspection requirement.

Frequency Tuning allows the operator to select the specific frequency of a problem sound while reducing interference from competing ultrasonic signals

Bi-Modal Meter Switch has two meter functions:

1) *Logarithmic Metering* will provide instant 'real time' response for enhanced leak and fault detection,

2) *Linear Mode* provides a slow, averaging response to stabilize readings for bearing and mechanical monitoring.

A 10-turn Sensitivity Adjust Dial provides a wide dynamic sensitivity range.

Trisonic™ Scanning Module, a patented transducer, consists of a phased array of three transducers, which provides a level of sensitivity beyond anything previously obtainable.

Acoustic Headphones:

- Noise isolating type for loud environments.

Intrinsically Safe:

- FM, CSA, ATEX rated

Kit includes:

- Frequency Selection (20 kHz – 100 kHz)
- Precision edgewise meter
- 3-way meter/auxiliary mode selector
- Numerically calibrated 10-turn sensitivity dial
- Rechargeable battery with low-level indicator light
- Anodized aluminum housing
- Trisonic™ Scanning Module
- Stethoscope/Contact Module
- Stethoscope Extension Kit
- Rubber Focusing Probe
- Warble Tone Generator
- Deluxe noise isolating headset
- Zero Halliburton aluminum carrying case
- Instruction Manual and Multimedia Training



10-Turn Sensitivity Adjust Dial



Ultraprobe 2000 Kit

UE SYSTEMS INC
The ultrasound approach

ULTRAPROBE® 2000



Ultrasonic CD Training Series is Included

This professionally produced series was shot in actual plant environments enabling you to see, hear and experience realistic test examples along with practical solutions. The training series is applicable for all levels of ultrasonic testing experience and is arranged in an organized format. You'll be taken step by step through each application. The following sections are included in the CDs:

- **Introduction to Airborne Ultrasound**
- **Review of each Ultraprobe Feature**
- **Overview of the Specific Application (Leak Detection, Mechanical and Bearing Inspection, Heat Exchangers, Boilers & Condensers, Steam Traps & Valves, Electrical Inspection)**
- **Demonstration of Testing Techniques**
- **Problem Solving Techniques**

GSA Listed

FM APPROVED

CE SP Exia Ex**

UE SYSTEMS INC

The ultrasound approach

Application Selection Chart

APPLICATION	KIT #	UP2000KT	UP2000SC	UP2000C	UP2000S
Pressure & Vacuum Leak Detection		✔	✔		✔
Hydraulic Valve Bypass		✔	✔	✔	
Exhaust System Leaks		✔	✔		✔
Heat Exchangers, Boilers, Condensers		✔	✔		✔
Valve & Steam Trap Inspection		✔	✔	✔	
Bearing Testing		✔	✔	✔	
Gear/Gear Box Inspection		✔	✔	✔	
Cockpit Window/ Hatch Leaks		✔			
General Mechanical Inspection		✔	✔	✔	
Tanks, Pipes, Leak Testing, etc.		✔	✔		✔
Electrical Inspection		✔	✔		✔

ULTRAPROBE® 2000 Specifications

Construction:	Hand-held metered pistol type made with aluminum and ABS plastic
Circuitry:	Solid State heterodyne receiver with temperature compensation
Frequency Response:	Detect ultrasonic frequencies between 20 kHz and 100 kHz, continuously variable. Frequencies are converted to 50 Hz to 3 kHz audio.
Probes:	**Scanning Module** patented Trisonic plug-in type consisting of a phased array of multiple transducers for airborne ultrasound. This probe is shielded against RF interference. **Rubber Focusing Probe** (flexible) slips over scanning module to concentrate conical directivity and to shield reception of stray ultrasound. Also fits over Stethoscope Module to shield against high ambient ultrasound while unit is at maximum sensitivity. **Stethoscope Module** – plug-in type, insulated probe with RF shielding; 4 1/2" (11.4 cm) long stainless steel probe tip, conically shaped for uniform surface contact. Stethoscope Extension Kit: 3-piece, segmented metal rods to increase stethoscope contact range for 20" (50.8 cm) and 31" (766.2 cm).
Transmitter:	Patented warble tone transmission
Headset:	Noise isolating type: Double headset wired monophonic. Impedance16 ohms. Over 23 dB of noise attenuation. Meets or exceeds ANSI specifications and OSHA standards. For hard hat use.
Indicators:	Ballistic output meter; linear calibration scale of 0-100 for logging relative measurements. Meter is accurate 1% throughout entire scale. Low Level Battery LED indicator for main housing internal power supply.
Battery:	Self contained NiMH rechargeable. RECHARGING SYSTEM: Standard 110V. Also available in 220V.
Features:	**Frequency Tuning Adjustment Dial:** 20-100 kHz with "fixed band" position for ultra-narrow frequency response. **Bi-Modal Meter Switch** for logarithmic and linear meter scale adjustments. **Optional Auxiliary Mode** selection for chart recorder output: 0-50 mV. **Sensitivity Control** – Precision 10-turn adjustment dial with numerically calibrated sensitivity increments for finite gain adjustment. **Spring loaded trigger switch**
Overall Size:	Complete kit in Zero Halliburton aluminum carrying case: 18.5" x 14.5" x 6.5" (47 x 37 x 17 cm) Pistol unit: 2 lbs. (.9 kg) Complete carrying case: 14 lbs. (6.4 kg)
Sensitivity:	Detects .005" (.127 mm) diameter leak @ 5 psi (.34 bar) at a distance of 50 ft. (15.24 m)
Threshold*:	1 x 10^{-2} std. cc/sec to 1 x 10^{-3} std. cc/sec
Warranty:	1-year parts/labor standard, 5 years with completed warranty registration card.
Display Modes:	Log and Lin

*depends on leak configuration
**specify Ex rating if needed at time of order.

Ultraprobe 2000 Kit: Meets and exceeds ASTM E1002-2005 requirements for Leak Detection.

Government Codes NSN: 6635-01-156-3927, FSCM (CAGE) Code: 59202
Table of allowance #s: 788, 404, 576, 583, 607

Covered by one or more of the following patents: 0151115; 0303776; 0315199; 1206586; 1297576; 1881263; 2562758; 2689339; 4416145; 4823600; 5955670; 6122966; 6339961; 6341518; 6415645; 6655214; 6707762; 6804992

UE Systems is committed to continual product improvement; therefore specifications are subject to change without notice. Warranty details are available by request.

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