

ULD-400 Series Ultrasonic Leak Detectors

The ultimate ultrasonic diagnostic tool

HVAC/R, mechanical and electrical inspection and troubleshooting

When equipment begins to fail due to an air or gas leak or vibration, or electrical discharge, the leakage point emits an ultrasonic sound wave that is above the natural range of human hearing. The ULD-400 Series Ultrasonic Leak Detectors convert this ultrasonic sound into a signal that can be used to pinpoint the exact location of the equipment failure. See the strength of the leak clearly on the large LCD display bargraph and identify the source of the leak by listening to the converted audible sound emitted via the headphones. When working in unpressurized systems, or the pressure is not sufficient enough to detect or verify a leak with the Receiver alone, use the Transmitter to generate the ultrasonic signal (included with the ULD-420 kit). In extremely noisy environments where there is strong ultrasonic noise generated by running machinery or equipment, the Receiver's filter function can filter out up to three main noise frequencies which would otherwise hide the noise of the fail.

Features

- **2.5" LCD display** with bargraph
- **20 kHz to 90 kHz frequency range:** optimal range for detecting a variety of leakage events
- **Three filters** to remove main noise frequencies in noisy environments
- **Adjustable Receiver sensitivity and Three Transmitter signal strengths** for accurate leak pinpointing
- **Quality headphones** to help identify the source of the leak
- **Parabola accessory** directs the ultrasound towards the sensor
- **Detachable Tubular Extension** provides additional reach in hard to reach areas

The ULD-400 is ideal for inspecting:

- Compressed air or other gases*
- Plumbing
- Electrical and mechanical systems
- Valves, tanks and pipes
- Heat exchangers, boilers and condensers
- Air conditioning and refrigeration systems
- Motors and machinery

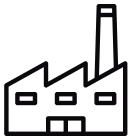
*Do not use ULD-400 for combustible gas leak detection. The Amprobe GSD600 can be used for propane and methane gas leak detection.



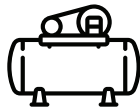
Safety Certification

All Amprobe tools, including the Amprobe ULD-400 Series, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab. In addition, Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.

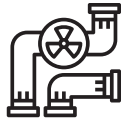
The ULD-400 Series is ideal for industrial applications.



Facilities
Maintenance



Air
Compressors



Industrial
Plumbing



Motors and
Machinery



Construction

Leak not pressurized? No problem.

When a leak is not pressurized sufficiently, or located in an unpressurized system, it is not emitting enough ultrasonic sound for the Receiver to detect it. In these circumstances, use the Transmitter to emit the ultrasonic sound readable by the Receiver. The Transmitter is programmed with three signal levels for precise pinpointing of leaks.

The Transmitter can be used to find air and water leaks in:

- Automobile windshields and windows
- Fluid and gas tanks
- Building windows, doors or roofs



Find leaks even in noisy environments

In some situations, there might be strong ultrasonic noise generated by running machinery, motion sensors or other equipment. This noise will cause the Receiver to read the maximum signal strength of this noise interference on the display regardless of the sensitivity settings and make it unusable for detecting leaks. The Filter function was designed for these situations.

Simply press the Filter button and the Receiver will automatically detect and filter out up to three main noise frequencies.



Visual and audible leak pinpointing

While scanning a target area with the Receiver's microphone sensor, the displayed bargraph will indicate proximity to the source of the leak. Plug the headphones into the Receiver to audibly hear the leak and verify its source. For example, air leaks will produce more of a hissing sound while electric discharge manifests in a ticking sound.





Features and specifications

Features	ULD-400-R Receiver	ULD-400-T Transmitter
Sensitivity Adjustment	•	—
Volume Adjustment	•	—
Signal Level Adjustment	—	•
Earphone Jack (3.5 mm)	•	—
Display Size	LCD 2.5 in (6.35 cm)	—
Display Dimensions	1.45 x 1.93 in (36.72 x 48.96 mm)	—
Display Resolution	240(RGB) x 320 pixels	—
Display Type	TFT-LCD (262 K)	—
Display Color	True, 16bit/color	—
Frequency Range	20 kHz to 90 kHz	Typical 40 kHz squarewave
Filter	±5 KHz of main noise frequency, up to three filters	—
Power Supply	4 x 1.5 V AA (LR6) alkaline batteries	2 x 1.5 V AAA (LR03) alkaline batteries
Power Consumption (typical)	75 mA	33 mA
Battery Life (typical)	105 hours (Alkaline)	60 hours (Alkaline)
Low battery indication	•	Red LED
Weight	Approx. 0.518 lb (0.235 kg)	Approx. 0.335 lb (0.152 kg)
Dimensions	7.547 x 2.984 x 1.791 in (183 x 75 x 43 mm)	5.295 x 2.559 x 1.326 in (137 x 65 x 33 mm)
APO function	60 minutes when in idle	
Operating Temperature	-4 °F to 122 °F (-20 °C to 50 °C)	
Storage Temperature	-4 °F to 158 °F (-20 °C to 70 °C)	
Operating Humidity	<80% RH	
Pollution Degree	2	
Protection	IP40	
Certifications		
Electromagnetic Compatibility (EMC)	EN 61326-1 Korea (KCC): Class A Equipment (Industrial Broadcasting & Communication Equipment) [1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.	

Included in the ULD-400 Series Kits

	ULD-410	ULD-420
ULD-400-R Receiver	1	1
ULD-400-T Transmitter	—	1
Headphones	1	1
Earbuds (for use with hard hat)	1	1
PB-1 Power Parabola	1	1
TEA-1 Flexible Tubing Adapter	1	1
TE-1 Tubular Extension	1	1
CC-ULD-400 Hard Carrying Case	1	1
AA Batteries (Receiver)	4	4
AAA Batteries (Transmitter)	—	2
User Manual	1	1



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