

AMPROBE®

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ULD-405 Ultrasonic Leak Detector

Find costly leaks in active compressed air systems

Easy inspection and troubleshooting

A diagnostic tool that hears what you can't. When equipment begins to fail due to an air leak or vibration, the leakage point emits an ultrasonic sound wave that is above the natural range of human hearing. The ULD-405 Ultrasonic Leak Detector converts this ultrasonic sound into a signal that can be used to pinpoint the exact location of the equipment failure. Find air leaks that drop down performance and incur additional power consumption, requiring more energy to compensate lost pressure. See the strength of the leak clearly on the large LCD bargraph and identify the source of the leak by listening to the converted audible sound emitted via the earbuds.

Features

- 2.5" LCD display with bargraph
- 20 kHz to 90 kHz frequency range: optimal range for detecting a variety of leakage events
- Adjustable Receiver sensitivity for accurate leak pinpointing
- Parabola accessory directs the ultrasound towards the sensor
- Detachable Tubular Extension provides additional reach in hard to reach areas

The ULD-405 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
- Automotive repair

* Do not use ULD-405 for combustible gas leak detection. The Amprobe GSD600 can be used for propane and methane gas leak detection.



Microphone sensor



Large color LCD screen

Signal strength bar graph

Sensitivity level bar graph

Sensitivity level adjustment

ULD-405
Ultrasonic Leak Detector



Safety Certification

All Amprobe tools, including the Amprobe ULD-405, 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-405 is ideal for a variety of applications



Air Compressors



Automotive Maintenance



Motors and Machinery



Construction



ULD-405 with Power Parabola



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.

Reduce your utility bill

Air leaks can have a huge impact on the energy efficiency of your whole system. The ULD-405 will help you troubleshoot problem areas where air leaks have gone undetected, reducing your overall financial costs.



Leak not pressurized? Use the ULD-400-T Transmitter.

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 ULD-400-T Transmitter (available separately or with the ULD-420 kit) 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
- Building windows, doors or roofs
- Valves, junctions and protective seals
- Refrigeration chamber door seals



Features and specifications

| | ULD-405 Receiver |
|-------------------------------------|---|
| Sensitivity Adjustment | • |
| Volume 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 |
| Power Supply | 4 x 1.5 V AA (LR6) alkaline batteries |
| Power Consumption (typical) | 75 mA |
| Battery Life (typical) | 105 hours (Alkaline) |
| Low Battery Indication | • |
| Weight | Approx. 0.518 lb (0.235 kg) |
| Dimensions | 7.547 x 2.984 x 1.791 in (183 x 75 x 43 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 | CE |
| Electromagnetic Compatibility (EMC) | <p>EN 61326-1</p> <p>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.</p> |

ULD-400 Series comparison

| | ULD-405 | ULD-410 | ULD-420 |
|----------------------------|---|---|---|
| Frequency Response | 20 kHz to 90 kHz | 20 kHz to 90 kHz | 20 kHz to 90 kHz |
| Receiver Display | 2.5 in LCD | 2.5 in LCD | 2.5 in LCD |
| Receiver Extensions | Detachable tubular extension and parabola | Detachable tubular extension and parabola | Detachable tubular extension and parabola |
| Transmitter | Optional (ULD-400-T) | Optional (ULD-400-T) | • |
| Sensitivity Adjustment | 8 levels | 8 levels | 8 levels |
| Filters | – | 3 | 3 |
| Headphones | – | • | • |
| Hardhat Compatible Earbuds | • | • | • |

Included in the ULD-400 Series Kits

| | ULD-405 | ULD-410 | ULD-420 |
|---------------------------------|---------|---------|---------|
| ULD-400-R Receiver | – | 1 | 1 |
| ULD-400-T Transmitter | – | – | 1 |
| ULD-405 Receiver | 1 | – | – |
| Headphones | – | 1 | 1 |
| Earbuds (for use with hard hat) | 1 | 1 | 1 |
| PB-1 Power Parabola | 1 | 1 | 1 |
| TEA-1 Flexible Tubing Adapter | 1 | 1 | 1 |
| TE-1 Tubular Extension | 1 | 1 | 1 |
| CC-ULD-400 Hard Carrying Case | – | 1 | 1 |
| CC-6000 Soft Carrying Case | 1 | – | – |
| AA Batteries (Receiver) | 4 | 4 | 4 |
| AAA Batteries (Transmitter) | – | – | 2 |
| User Manual | 1 | 1 | 1 |



ULD-405