

allsun EM2268

allsun Pro Ultrasonic Leak Detector EM2268 Instruction Manual

1. PRODUCT OVERVIEW

The allsun Pro Ultrasonic Leak Detector EM2268 is designed for professional use in automotive and industrial environments. It detects high-frequency sound (36-44KHz) generated by escaping air, gas, or vacuum leaks, enabling precise diagnosis in various systems. The device also functions as an electronic stethoscope for internal mechanical sound analysis.

Important Usage Guidance:

This tool is specifically designed for detecting air, gas, and vacuum leaks in automotive and industrial contexts. It is not intended for detecting leaks in water pipes, plumbing, swimming pools, or tires. Always use the included test leak to verify functionality before use.

WIDELY APPLICATION



Figure 1: The allsun Pro Ultrasonic Leak Detector EM2268 and its ultrasonic transmitter, illustrating various applications including external leak detection, internal leak detection, tightness checks, and electrical discharge detection.

2. COMPONENTS AND FEATURES

The EM2268 system includes the main leak detector unit, an ultrasonic probe, an ultrasonic microphone, an ultrasonic transmitter, extension tubes, probe tips, and a headphone set with volume adjustment.

- **Leak Detector:** Main unit with LED array for intensity indication and a rotary volume control knob.
- **Ultrasonic Probe:** Used for internal leak detection and mechanical sound diagnosis.
- **Ultrasonic Microphone:** For external leak detection.
- **Ultrasonic Transmitter:** Emits ultrasonic signals for tightness checks in non-pressurized compartments.
- **Extension Tube & Probe Tips:** For reaching confined spaces.
- **Headphone:** Provides audible feedback in noisy environments.



Figure 2: All components included with the EM2268 Ultrasonic Leak Detector.



Figure 3: Key features of the leak detector unit, including the sensitivity knob and LED array.

3. SETUP

- 1. Unpack Components:** Carefully remove all items from the carrying case. Ensure the leak detector, ultrasonic probe, ultrasonic microphone, ultrasonic transmitter, extension tubes, probe tips, headphones, and user manual are present.
- 2. Install Batteries:** The leak detector and ultrasonic transmitter each require a 9V battery (6F22 or equivalent). Open the battery compartment on the back of each unit and insert the battery, observing polarity. Close the compartment securely.
- 3. Connect Headphones:** Plug the headphones into the earphone jack on the main leak detector unit.
- 4. Attach Microphone/Probe:** Depending on the application, screw the ultrasonic microphone or the ultrasonic probe (with desired tip/extension) onto the top of the main leak detector unit.

Your browser does not support the video tag.

Video 1: This video demonstrates the unboxing, component identification, battery installation, and initial assembly of the allsun EM2268 Ultrasonic Leak Detector.

4. OPERATING INSTRUCTIONS

4.1. General Operation

1. Turn on the main leak detector unit using the power switch. The power indicator LED will illuminate.
2. Adjust the sensitivity knob to an appropriate level. Start with a lower sensitivity and increase as needed to filter out background noise.
3. Wear the headphones for clear audible feedback.
4. The LED array on the unit will visually indicate the intensity of detected ultrasonic waves.

4.2. Leak Detection in Pressurized Systems (Air/Gas/Vacuum)

For systems like car air conditioning, industrial gas lines, or vacuum systems:

1. Attach the ultrasonic microphone to the main unit.

2. Slowly move the microphone along the suspected leak area.
3. Listen for a distinct high-frequency sound in the headphones and observe the LED array for increased intensity. The sound and LED intensity will increase as you approach the leak source.

Signal Indicator	LED-array, headphone
Frequency Response	36kHz - 44kHz
Operating Environment	temperature: 0°C - 50°C
	relative humidity: ≤ 85%
Battery	9V battery, 6F22 or equivalent
Size	Leak Detector: 215x50x30mm
	Ultrasonic Transmitter: 103x60x24mm
Weight	Leak Detector: about 162g (including battery)
	Ultrasonic Transmitter: about 90g (including battery)

Figure 4: Detecting a leak in a car's window seal using the ultrasonic microphone.

4.3. Internal Mechanical Sound Diagnosis

For listening to internal sounds from bearings, valves, and pumps:

1. Attach the ultrasonic probe (with appropriate tip/extension) to the main unit.
2. Place the probe tip in direct contact with the component you wish to inspect.
3. Listen for abnormal sounds (e.g., grinding, knocking) in the headphones. The LED array will also indicate sound intensity.



Figure 5: Using the contact probe for mechanical diagnosis on a pipe valve.

4.4. Leak Detection in Non-Pressurized Compartments (with Transmitter)

For tightness checks in areas like car cabins or sealed containers:

1. Place the ultrasonic transmitter inside the compartment to be tested and turn it on.
2. Close the compartment.
3. Using the main leak detector unit with the ultrasonic microphone, scan the exterior seams and potential leak points of the compartment.
4. A leak will be indicated by the detection of the transmitter's ultrasonic signal through any openings.

Your browser does not support the video tag.

Video 2: This video demonstrates the use of the EM2268 for detecting leaks in a car's door seal and for internal mechanical diagnosis on an engine.

4.5. Electrical Discharge Detection

The ultrasonic microphone can detect ultrasonic waves caused by electrical discharge from switches, transformers, circuit breakers, and similar equipment.

1. Attach the ultrasonic microphone to the main unit.

2. Carefully point the microphone towards the electrical components.
3. Listen for crackling or hissing sounds in the headphones and observe the LED array for intensity.

CAUTION: Do not make the microphone contact with high voltage equipment!



Figure 6: Detecting electrical discharge from circuit breakers.

5. MAINTENANCE

- **Cleaning:** Wipe the unit and accessories with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement:** Replace batteries when the power indicator light dims or the unit fails to power on. Always use new 9V (6F22) batteries.
- **Storage:** Store the device and its accessories in the provided carrying case in a cool, dry place away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

- **Unit does not power on:** Check battery installation and ensure batteries are fresh.
- **No sound or weak signal:** Ensure headphones are properly connected. Adjust the sensitivity knob to increase detection sensitivity. Verify the correct probe/microphone is attached for the application.
- **False positives/Excessive background noise:** Reduce the sensitivity using the rotary knob. Ensure the environment is as quiet as possible.
- **Inaccurate leak detection:** Confirm the device is being used for appropriate leak types (air, gas, vacuum). This device is not for water pipe leaks.

7. SPECIFICATIONS

Feature	Specification
Signal Indicator	LED-array, headphone
Frequency Response	36kHz - 44kHz
Operating Environment	Temperature: 0°C - 50°C, Relative Humidity: ≤ 85%

Battery	9V battery, 6F22 or equivalent (2 required)
Leak Detector Size	215 x 50 x 30mm
Ultrasonic Transmitter Size	103 x 60 x 24mm
Leak Detector Weight	Approx. 162g (including battery)
Ultrasonic Transmitter Weight	Approx. 90g (including battery)
Material	ABS
Power Source	Battery



Figure 7: Physical dimensions of the leak detector and transmitter units.

8. WARRANTY AND SUPPORT

This product comes with a **1-Year Warranty** from the date of purchase. For warranty claims or technical support, please contact the manufacturer or your retailer with your purchase details.

