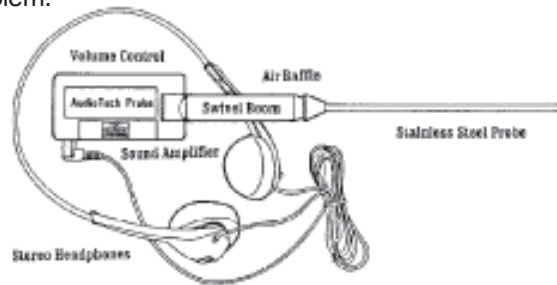


## *Diagnosing problems in engines, motors and other equipment can be time-consuming and costly.*

Professionals know that correct diagnosis is 90% of fixing the problem. Fortunately, malfunctioning components usually make irregular sounds which, if heard, can lead to quick diagnosis.

The AudioTech Probe™ amplifies those sounds and locates the trouble spot, so the problem can be fixed right the first time.

Using the tool is easy. Just put on the headphones, turn on the amplifier, and touch the suspected problem part. Your ears will find the problem.



### *Instructions for Use*

1. Install the 1.5V AAA battery in the amplifier by sliding the battery compartment door open and place the battery in position. The “positive” tip of the battery should be at the front.
2. Plug the headphones into the jack on the amplifier.
3. The thumbwheel on the side of the case is both the on/off switch and the volume control. Be sure to turn the switch off after each use to preserve the battery life.

### **Mode No. 1: Without the Probe**

To use for air flow, air leak, compressed gas leak, wind noise and some types of fluid movement detection, the tool is used without the stainless steel probe in place. This amplifier is extremely sensitive to air movement across the port at the end of the boom. When used for air movement detection, the presence of movement will be heard as an amplified “roaring” sound. By blowing across the tip at different velocities, you can see how the tool will register the sound. It will pick up even the softest breath.

For liquid movement, simply press the tip against the pipe or conduit and slowly turn the amplification level up.

### **Mode No. 2: With the Probe**

Using the tool with the probe in place will allow you to read both sound and vibration transmitted through the probe to the microphone. For checking most mechanical operations and for fault diagnosis, having the probe in place will give best results.

The thumbwheel on the side of the amplifier is the on/off volume control. Rotate the wheel to turn the probe on and adjust volume by rotating the thumbwheel. Approximately 1/4 ON position will deliver the clearest sound with the least amount of background noise. Where noise is fainter, and/or background noise lighter, adjust the volume higher.

After each use, **BE SURE to turn the volume control to the “OFF” position, to preserve battery life.**

### *Using the Air Baffle*

We suggest installing the Air Baffle on the Probe and simply leaving it in place. This baffle will prevent the microphone from picking up unwanted air movement noise from a fan when you are using the tool on an engine that is running or on operating HVAC equipment.



### **Air Baffle Installation**

- a. Insert the non-threaded end of the probe through the baffle, and carefully push it down toward the threaded end, leaving at least 1/4” of the thread exposed behind the baffle (see above illustration).
- b. Screw the probe onto the hand-held amplifier.
- c. The two plastic surfaces should be firmly mated together to create a seal.

## *Household Appliance Repair and Plumbing*

### **Refrigerant Charging**

The AudioTech Probe may be used to “listen” for bubbles in the sight glass or liquid line when charging a system with refrigerant. Attach the stainless steel probe and place it on the sight glass body, or at various locations on the liquid line until you can hear the bubbles. While charging the system, continue to monitor the location with the probe until the sound of the bubbles ceases, indicating the proper charge has been achieved.

### **Valve Operation**

To determine if a valve in a refrigeration, hydronic, plumbing, or other application is working, simply place the stainless steel probe on the valve body, and cycle the valve. You will be able to hear either the valve’s mechanical operation, or the change in sound of fluid flow, indicating whether the valve operated.

### **Plumbing and Hydroponic Systems**

The AudioTech Probe amplifies the sounds of fluid flow in pipes and can be used to determine where restrictions to flow exist, where flow is turbulent, or patterns of flow under differing conditions.

### **Air Flow From Grills, Diffusers, Etc.**

With the stainless steel probe removed, and with the tip facing the airflow, the intensity of air flow can be clearly heard, enabling "seeing" the air flow pattern without the use of smoke. By placing the tip against the duct, areas of turbulence may be detected.

### **Compressor, Air Handler and Other Equipment**

By placing the stainless steel probe at various locations on a compressor, conditions such as piston slap, rod knock, or other indications of wear or impending failure may be detected. The AudioTech Probe may be used similarly with any type of equipment to diagnose or analyze its condition.

### *Engines, Motors and Mechanical*

1. With the headphones on and the volume at the proper setting, simply place the tip of the probe against the surface near the bearing or part of concern, or search surfaces of areas of suspected source of noise or problem.
2. Metal transfers sound very well, so you may need to "read" the bearings on both ends of an electric motor to determine where the sound is the loudest, and therefore, the defective end. A comparison of the magnitude of a particular sound (such as a squeak) in different locations of the appliance or machine will lead to locating its source.
3. For sensing air or other gas leaks, remove the stainless steel probe, and pass the tip as near as possible to the suspected source, without actually allowing the tip to come in contact with the surface.

### *Air Movement, Exhaust and Gas Leaks*

1. Use without the stainless steel probe.
2. With the headphones on and the volume set properly, slowly move the barrel of the probe along the suspect area. You will hear a loud rush of air when you have detected the leak.
3. The thumb wheel on the side of the amplifier controls volume gain. In most applications you will not need to use the full volume to detect a fault. Approximately 1/4 to 1/2 "ON" will deliver the clearest sound with the least amount of background noise when the AudioTech Probe is being used to detect air leaks.

### **One Year Warranty**

Sonic Technology Products, Inc. warrants to the original purchaser that your AudioTech Probe will be free from defects in workmanship and materials for ONE YEAR from the date of purchase. Return the product to your dealer and it will be replaced or the purchase price refunded, at dealer option. This warranty does not cover units damaged by accident, abuse, misuse, or water damage, nor does it apply if the product has been altered or repaired by anyone other than the manufacturer. *We recommend you file your purchase receipt with this warranty.*

For information on replacement parts (steel probes, baffles, headphones) please call 1-800-247-5548.



120 Richardson St.  
Grass Valley, CA 95945

# AUDIOTECH PROBE™

**Professional Quality Electronic Stethoscopes**

## AT201 OWNER'S MANUAL

*Quickly & accurately pinpoints trouble spots:*

- Noisy valves or lifters
- Worn or broken gears
- Clogged fuel injectors
- Bad bearings
- Wind & air leaks
- Fluid & gas leaks