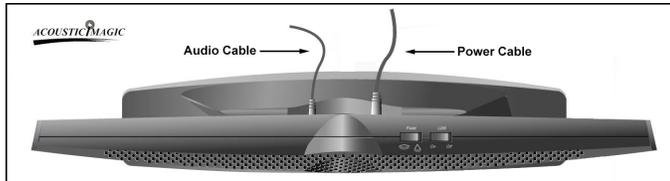


# INSTRUCTIONS

## General Setup

Connect the power and audio cables to their appropriate jacks on the back of the Voice Tracker™ Array (see Figure 1). Plug the power adapter into a standard 110-volt wall outlet and connect the other end of the audio cable to the “mic in” input on your computer’s sound card. The adapter supplies 6V DC power (center pin positive) to the microphone.

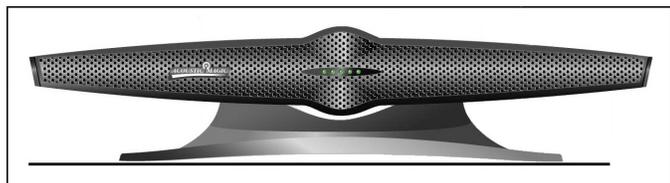


**Figure 1 – Audio and Power Cable Connections**

The Voice Tracker™ Array may be used as the audio input device for a variety of speech and multi-media applications. Many of the software packages which utilize a speech input have setup tools, which allow you to specify that you are using the “mic In” connection on your soundcard and to adjust the sound level (volume) automatically. Please refer to your specific application software for details. To adjust the volume or input selection manually on a Windows PC, see the **Adjusting Your Soundcard** section at the end of these instructions.

## Positioning

Aim the array in the direction of the desired talker(s). When properly positioned, the talker will be able to see all 5 green position indicators.

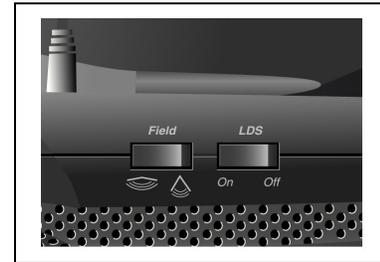


**Figure 2 – Voice Tracker™ Array Front View**

The Voice Tracker™ can be tilted up or down to facilitate mounting on the desktop (tilted up) or on the monitor (tilted down). For speech recognition applications, the desktop position will exhibit slightly better performance. If you mount it on top of the monitor, makes sure it is secured so it doesn’t fall off. The Voice Tracker can be mount on the ceiling by removing the weight in its base, and using the 4 screw hole in the base.

## Mode Switches

The Voice Tracker™ has 4 operational modes, selected by two switches: the Field switch and the Location Dependent Squelch™ (LDS™) switch (see Figure 3).

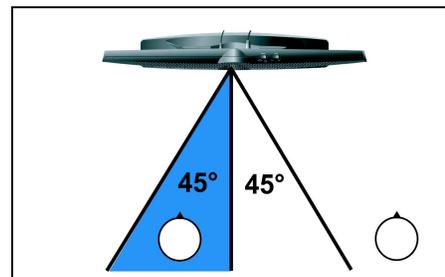


**Figure 3 – Field and LDS™ Switches**

The Field switch determines the scanning range of the array. In the wide-angle mode, the Voice Tracker™ will scan +/- 90 degrees. This is useful if the user desires to listen to an entire room. In the narrow-angle mode, the array will scan +/- 45 degrees. The narrower scanning range helps to reduce the impact of undesired talkers and noise sources outside the region of interest. Note that the Voice Tracker does pick up sound from behind, giving it a full 360 degree field of view. However, it is more sensitive in the forward direction.

When the LDS™ switch is set to On, the Voice Tracker™ will turn off during periods of silence and when the sound source is located outside the array’s reception region as determined by the Field switch. The array turns on again very quickly when the user resumes talking.

When used together with the narrow field of view, the LDS™ can be employed to ignore unwanted sounds. Once the talker pauses and the Voice Tracker™ turns off, the array will only turn on again when sounds come from within the +/- 45 degree listening area (see Fig 4).



**Figure 4 – Listening Area**

For speech recognition applications, when the limited scan range and LDS are on, the generation of spurious words or commands from sources outside the listening area will be reduced. However, since the beginnings of words may be clipped off, recognition accuracy may suffer. The user should decide whether this feature improves performance in their particular noise

environment. In general, we recommend LDS off and the narrow field of view for speech recognition applications.

Using a narrow field of view and LDS™ can also be useful when teleconferencing. If the incoming talker's speech is played through loudspeakers positioned outside the +/- 45 degree listening area, the array will turn off when only the far-end talker is active, thereby minimizing echo in the channel.

## Position Lights

The green position lights provide feedback on the operation of the array. They indicate where the array's listening beam is pointing. When the array recognizes a relevant sound, one of the 5 lights will be illuminated. The individual lights correspond to the range of potential sound source locations. For example, if a talker is directly in front of the array, the middle light will be illuminated. If the talker is to one side, a light on that side will turn on. If the talker moves across the field of view of the array, the lights will track the talker's motion. When two users are sharing the array, the light will indicate the direction of the active talker. In the narrow scanning range mode, only three lights are active. When there is no active talker, the lights may flicker as the Voice Tracker™ searches for a talker.

When the LDS is on, the indicator light will be illuminated only when there is sound activity within the designated listening area. With the LDS off, a light will remain on continuously through both speech and silence periods. In the event that no lights are on **and** the LDS mode is off, it is possible that the array is not plugged in or is working improperly.

## Using the Voice Tracker for Speech Recognition

Since the Voice Tracker™ operates differently from other types of microphones or audio input devices, you should retrain your speech recognition system after connecting the array and adjusting the soundcard gain level. This will allow you to more effectively utilize the improved sound quality produced by the Voice Tracker™ and will improve the overall performance of your speech recognition software. Be sure to select mic in during the "New User" setup. Personalized vocabulary can usually be transferred to the retrained "User".

## Adjusting Your Soundcard

On your Windows PC:

1. Go to Start button, Programs, Accessories, Multimedia (or Entertainment), then volume control.
2. Make sure the Mic In's mute is checked.
3. Go to Options, then Properties, select the circle next to Recording.
4. In the 'Show Volume Controls' region check the box next to Mic In and then click OK.

5. Check the Select box under Mic In and set its volume to an appropriate level for your soundcard. Be careful not to set this volume level too high. This will cause clipping.
6. Exit recording control.

Trouble shooting:

- Audio cuts out: Be sure LDS switch is in off position
- No audio. Check whether green lights track the talker. If so, the problem is probably in the computer. Make sure it is looking for recording input where the Voice Tracker is connected (mic in or USB)

## FCC & CE Mark Compliance

This equipment has been tested and found to comply the limits for a Class A digital device, pursuant to part 15 of the FCC rules as well as the CE Mark rules. These limits are designed to provide reasonable protection against interference when the equipment is operated in a commercial environment. This unit generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference with radio communications. Changes or modifications not expressly approved by Acoustic Magic could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

If you have further questions, e-mail us at [CustomerService@AcousticMagic.com](mailto:CustomerService@AcousticMagic.com)  
Or call 978 440 9384.



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