

# FIDELITY TURNS INTO REALITY.

## With The ADS 10 Digital Time Delay System.

If you are a typical reader of this magazine, you already own a good stereo system and your next component will be a time delay/ambience-reproduction system.

The best two-channel stereo sound is still a limited illusion, a sonic painting on the wall between the stereo speakers. You don't have to open your eyes to know that you are hearing a reproduction rather than the real thing. Stereo provides a picture window view of the recording locale, but as long as the sound is only projected at listeners from in front, stereo cannot produce the feeling of **being there** in the same acoustic space with the musicians. Better recordings and finer stereo components can improve the quality of the picture-window view but they cannot make the breakthrough to a convincing sense of "reality" in the reproduction. The you-are-there illusion in sound, that feeling of hearing the sound in **three** dimensions, can only be achieved by re-creating the enveloping "ambient" sound field which surrounds the listener in any real acoustic space. Critics and reviewers have agreed that there is nothing you can add to a decent stereo system for \$1000 which will improve its performance as much as a good time delay/ambience system can.

The ambience system you will want to own is the ADS 10 — the most sophisticated and the only complete time delay system now offered to the public. The ADS 10 is a fully optimized, fully integrated, third generation digital system containing everything you need to add to your existing stereo (ambience circuitry, amplifier, and speakers) — free of the limitations and compromises of earlier time delay units. Its component parts work at maximum efficiency with each other, with no money wasted on redundant parts or unused capacity. The ADS 10 speakers were developed specifically for this application.

Building the amplifiers into the same chassis as the time delay circuitry, sharing the same power supply and cabinet, allows us to offer a full 100 watt per channel amp

at the price of a far smaller separate amplifier. This also simplifies installation in your home by eliminating another piece of gear requiring additional shelf space and interconnecting cables.

As for the ADS 10's time-delay and ambience-producing circuitry, we invite you to compare it with others. We believe you will find it to be the best-sounding, most natural and musical, most flexible and most logically designed ambience system available.

The ADS 10 has more flexibility of control than any other system, but it is simple to operate. Design of the controls has been human-engineered so that you can easily select the size of the hall (from an intimate club to a cathedral), the depth of the stage, the location of your "seat" and the reverberant qualities of the hall itself. An irritating problem of earlier time delay systems — the unnatural sound of the ambience-enhanced human voice, as in FM listening, for example — is resolved in the ADS 10 by a special circuit. Provision is made for adding ambience to the front channels for "dry" recordings, as well as to your own tape recordings. An ambience-enhanced headphone outlet provides the most natural, most musical headphone listening you've ever known.

Visit your ADS dealer. Bring your favorite records with you and listen to them through the ADS 10. Experience the difference between fidelity and reality. Change the hall. Deepen the stage. Move your "seat." Check the features and the performance of the ADS 10 against any other time delay system.

You'll discover the ADS 10 Acoustic Dimension Synthesizer is the system for which you've been waiting.

For a comprehensive explanation of ambience reproduction and the ADS 10 Time Delay System, request your free copy of the ADS 10 Brochure. For full information on the scientific basis, design, installation, features and functions of the ADS 10, we invite you to order the ADS 10 Owner's Manual at \$5.00 per copy.



ADS, Analog & Digital Systems, Inc., One Progress Way, Wilmington, MA 01961

Please send me a copy of the ADS 10 Owner's Manual. \$5.00 is enclosed.

Please send me a copy of the ADS 10 Brochure.

Name \_\_\_\_\_ Address \_\_\_\_\_

# Connecting Your ADS Speakers:

Use 18 gauge lamp or zip cord, unless you have an exceptionally long run (25 feet or more). In this case, heavy-duty 16 gauge or heavier cord is a better choice. At the speaker end, separate and strip each conductor of the cord back about half an inch. Depress the spring loaded, color coded terminals thereby opening them to receive the stripped leads. Make sure that leads do not fray and touch each other.

Speakers should be connected or phased identically. Coding on the cord makes this simple. Cord leads are coded by color, insulation pattern, or seam tracer. For the first speaker, either lead of the speaker cord can be connected to either speaker terminal. However, the second speaker must be connected in exactly the same way. Likewise, either lead from the right speaker can be connected to either terminal of the right channel amplifier output, as long as the same coded connection is used for the left channel.

Identical connection assures that the speakers are in phase, which is important for full bass output and good stereo imaging. To double check the phasing, place the speakers together face to face, switch your amplifier to mono (L+R), play some music and try reversing the connections at the back of one of the speakers. The connection that provides the fullest bass response is the correct one.

## Speaker Placement.

You can place your speakers vertically or horizontally in any convenient location. When placed vertically, keep the low frequency driver or woofer nearest the floor. If both speakers are mounted horizontally, keep the high frequency driver or tweeter toward the outside of the room for a wider stereo image. Ideally, the two speakers and the listener should form an equilateral triangle. Even if this arrangement isn't practical for your application, ADS speakers — with their super-wide dispersion and soft-dome hemispherical drivers — still produce satisfying stereo reproduction.

You can vary the amount of bass coming from the speakers by changing their placement with respect to room surfaces. Bass increases as the speaker is moved toward intersecting room surfaces (wall and floor, wall and wall). The greatest bass output takes place when a speaker is placed in the corner of a room. However, such bass emphasis may be unnatural in character and will be dependent upon the acoustics of your particular room. In the case of the ADS 810 and 910, there are optional leg sets available for floor standing operation.

## Precautions.

Certain precautions must be observed with any speaker system regardless of power rating.

First, avoid amplifier clipping. This situation occurs frequently with smaller amplifiers which are pushed to their electrical limits trying to produce a loud playing level. Clipping of even a small amplifier may easily destroy the

tweeters of a large loudspeaker system. To avoid clipping, always operate your system slightly below the point at which any type of distortion is heard. Such distortion may vary from blurring or compression of the musical signal to harshness, sharp buzzing, or popping sound.

Second, continuous sine wave test tones are dangerous to any speaker designed for music, and should be used only for short periods at a very low volume setting. This is particularly true at higher frequencies.

Finally, be sure to lower your volume control each time you raise or lower your tone arm from a record, tune a station on your tuner, or operate your tape deck in a fast wind mode.

Observing these precautions will assure you of the continued high performance level for which your speakers were designed.

## Troubleshooting

Most ADS speakers contain fuses to help protect the tweeters. On these models, if you find the speaker sounds dull, you may restore normal operation by replacing the fuse located on the rear panel next to the input terminal. Do not replace with a larger or slower fuse than originally supplied. Check the value specified on the rear panel label of your speaker.

If one channel is distorted, missing certain frequencies, or altogether dead, interchange the speaker wire connections on the power amplifier so that the left speaker is connected to the right channel output and the right speaker is connected to the left channel output. If the same speaker has the problem, chances are the speaker is defective. If the problem changes speakers, then something else in the system is at fault.

Problems such as hum on either or both channels, or proper operation on phono but not on tuner, or vice-versa, are not caused by the speaker.

In case the information given above does not resolve the problem, ask your dealer for assistance. If the speaker is defective, check with your dealer before contacting us. He can either repair the unit or suggest an authorized repair station in your area.

Don't attempt to repair the speaker yourself, as this will void the warranty. If no one in your area is authorized to repair ADS speakers, please write or call the factory:



**ANALOG & DIGITAL SYSTEMS, INC.**

**ONE PROGRESS WAY**

**WILMINGTON, MASSACHUSETTS 01887**

Attn: Service Department, Tel: 617-658-5100

Please provide the serial number of your unit, date purchased, store and address where purchased, specific description of the problem, associated equipment and whether or not you have the original shipping material.

If it's necessary to return the speaker to the factory, please ship it prepaid and use the Authorized Return Number we will provide in our response. Speakers received without this number will not be accepted.