

ADVENT

# **Advent Loudspeaker 3002** **Advent Loudspeaker 2002**

*Excitement in the air*





## Living with loudspeakers

Despite all advertising to the contrary, it is not particularly difficult to design a good loudspeaker. The basic knowledge and materials have been available for some time, and any of many design concepts can produce excellent sound.

Even so, many people own loudspeakers that simply aren't very good. People who own those speakers are surprised and disappointed that they don't enjoy listening to music as much as they might.

On the other hand, people who own Advent loudspeakers say that they find a new excitement in familiar music and a happy interest in new music. Technical reviewers in the USA and around the world point to the Advent loudspeakers as a standard of value. If you listen closely and at length to any Advent speaker, preferably with musical material that is familiar to you, we believe you will have no trouble hearing why the Advent reputation for excellence is so widespread.

When you are thinking of purchasing a new music system or upgrading the one you already own, it's worthwhile to understand the "beneath the surface" qualities that make the Advent loudspeakers better than others that merely look like them.

**An analogy** Pianos and loudspeakers excite the air in patterns which our ear and brain translates into sound. The four qualities (and their interrelationship) which give Advent loudspeakers their advantage and characterize all high performance loudspeakers are:

**Wide Range** The shortest strings on the piano make the highest sounds, the longest the lowest sounds. Many loudspeakers, because of electrical and/or mechanical shortcomings, cannot duplicate the far reaching extremes of these sounds. Most often it is the lowest frequencies which dis-

appear. The Advent loudspeakers, however, have no trouble delivering the lowest frequencies; for ten years, their bass performance has been near legendary.

**Good tonal balance** Imagine two unlikely conditions: 1. a piano with no strings on a particular key. 2. another piano with twice as many strings as usual attached to that same key. In the first case, the adjoining notes would fill in much of the music, but you'd know something essential was missing. In the second case, even with the adjoining notes the double one would dominate and seem out of perspective. In loudspeakers, every frequency must

be in proper balance with the adjoining ones. Loudspeakers sound different from one another largely because of specific differences in balance. The careful attention Advent gives to the frequency-to-frequency balance of their loudspeakers is mainly responsible for the long term delight and satisfaction Advent owners report.

**Broad dispersion** Pianos don't have any trouble with this, but loudspeakers do. Simply stated, dispersion describes the ability to place all the air patterns (sound) uniformly through a listening space. The low notes aren't a problem, the middle and high ones are. Advent loudspeakers, primarily because of the new "Direct Report" tweeter, excel at placing sound widely and evenly throughout the room. The advantage of this excellent dispersion is a stereo image convincingly real and solid anywhere in the room. Pianos solve this problem through brute force, which brings us to the last point.

## Small loudspeakers, big loudspeakers

The 2002 and 3002 are Advent's smallest loudspeakers. Since "big" is a word sometimes used to describe sound quality (not just cabinet size), it's worth taking a minute to look at just exactly how size does affect what you hear.

Up to a point, cabinet volume will determine how much bass a loudspeaker system can reproduce. All Advent loudspeakers are acoustic suspension designs; this approach yields the lowest bass possible for a given size—other designs of similar size don't come close to giving you the bass response that Advent loudspeakers do.

However, the sound qualities that make a loudspeaker satisfying—smooth frequency-to-frequency balance, wide dispersion, and the power handling necessary for your listening room—are not limited by the size of the loudspeaker. Thorough engineering and good design endow a speaker system with the ability to sound "big" or to give you your music life-size.

In designing the Advent 2002 and 3002 we have traded some of the lowest frequency response for smaller, more convenient cabinet sizes and the lower cost that allows. We haven't traded *any* of the quality aspects that make a loudspeaker a pleasure.

If you're shopping with a budget in mind, we think you'll be happily surprised by the "big" little Advent loudspeakers, and by all that you *don't* have to give up for size.



## The Advent 3002: A brief technical description

**Ample power handling capacity** The device which excites the air, whether piano or speaker, must have the force to move all the air between itself and your ear. This is not to say you need a concert grand in a studio apartment, but you do need enough clout to do the job without strain. Advent loudspeakers can fill home-sized rooms with deep bass and smooth, balanced stereo at levels that recall the first time you heard live music.

Now then, we're *not* saying that Advents are the only speakers to buy. We *are* saying that Advent Loudspeakers have what it takes—all of what it takes—to be rightfully included in the "best" category, and at a price competitive with pedestrian look-alikes.

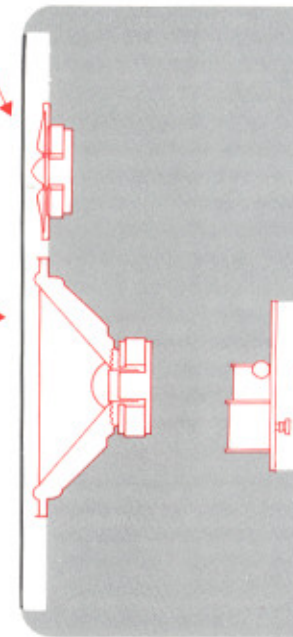
**The new "Direct Report" tweeter**  
Advent's new "Direct Report" tweeter is exceptionally smooth and has outstanding high and mid frequency dispersion.

Three factors differentiate the "Direct Report" tweeter from conventional dome tweeters. First, the geometry of the phase plate places a carefully calculated air mass at the perimeter of the dome. The linearity of the driver through its range is the result of putting the mass to work. Second, the taper of the phase plate and countersunk mounting hardware form an acoustically neutral environment. Third, the shape of the dome is parabolic, not hemispheric—a geometric difference that places the vertex of the dome forward of the phase plate. This accounts for the system's outstanding dispersion characteristics and, in stereo pairs, produces sharply focused imaging.

**\*Direct Radiating Equalized Parabolic Optimum Range Tweeter**

**The classic Advent woofer**  
The 3002 utilizes the classic Advent low frequency driver. This acoustic suspension woofer is renowned for awesome deep bass capability and prodigious power handling capacity.

By careful choice and integration of the cone material, the cone diameter, and the excursion capability, this woofer not only radiates high acoustic output at low frequencies, but also offers wide dispersion at the upper end of its range.



### **The cabinet**

The cabinet is constructed of a dense, non-resonant composite board ideal for acoustic application. The careful placement of the drivers on the baffle board minimizes cabinet diffraction and the resulting response aberrations.

### **The crossover**

The crossover network is often an underestimated consideration in the design of a loudspeaker system; however, the crossover network chosen for the 3002 is the product of as much development time as any element of the system. It is the reason for the audibly seamless transition between drivers. One important advantage of designing and building drivers from the ground up (as Advent does) is the "fit" of the crossover to the driver. This complementary relationship, maximized in the 3002, makes for a system that can be driven easily by any amplifier or receiver.

## The Advent 3002

The 3002 delivers startling performance for its price and size. The "Direct Report" tweeter brings the listening advantage of solid, focused stereo imaging and the power handling capacity to fill all but barn-sized rooms. A smaller Advent woofer designed to offer deep bass in small enclosures adds an important degree of usable low frequency output when compared to like-priced competitors.

The 3002 in combination with a receiver of modest power makes a system that clearly outshines others using speakers of similar size and price.



## Advent Loudspeaker 3002 specifications

<b>Frequency response</b>	48Hz to 23kHz $\pm$ 3dB (on axis)
<b>Impedance</b>	8 ohms nominal 7 ohms minimum
<b>Resonance</b>	58Hz $\pm$ 2 Hz
<b>Harmonic distortion</b>	1 watt: less than 1% over 80Hz
<b>Dispersion</b>	Less than $\pm$ 1dB variance 30° V or H to 13kHz
<b>Crossover frequency</b>	2.8kHz
<b>Sensitivity</b>	88dB at 1 watt in at 1 meter on axis
<b>Frequency range</b>	LF: 40Hz - 8dB HF: 23kHz - 3dB
<b>Size</b>	20"H $\times$ 12"W $\times$ 8 1/2"D
<b>Weight</b>	21.5 lbs.
<b>Finish</b>	Walnut grain vinyl over high density composition board



The 2002 is Advent's least expensive loudspeaker system. It supplies, at low cost, the wide frequency range, critically adjusted tonal balance and broad dispersion that make the performance of inexpensive systems far better than most people expect.

Three factors make the 2002 remarkable:

- When compared to many like-priced speakers, the 2002 delivers up to an entire additional octave of bass. No one who has heard this level of bass performance is likely to settle for less.

- It can be driven by virtually any amplifier. The efficiency of the 2002 solves system matching problems; even small amplifiers can produce satisfying sound levels.

- The 2002 cabinet is scaled to take up minimum space. Like all Advent loudspeakers, the colors and textures of the 2002 are at home anywhere.

### The Advent high efficiency tweeter

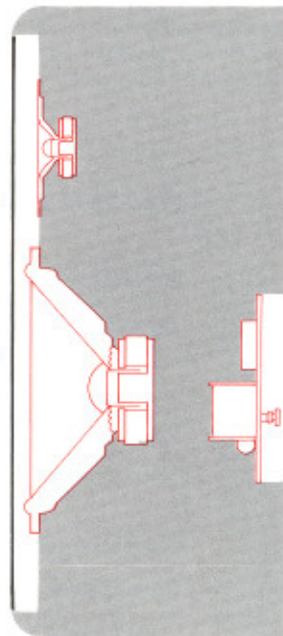
This Advent driver is similar in appearance to many others, but there's more than meets the eye. The smoothness of this tweeter puts it in the class of top notch speaker systems. The engineering behind the high efficiency tweeter takes full advantage of the best understood design approaches and uses new materials to more closely approach theoretical ideals. In particular, the surround, because of the unusual suppleness its composition provides, damps out cone resonances that color the sound.

The offset placement (mirror image) of the driver on the baffle board allows pinpoint stereo imaging in close quarters and insures smoother response in a wide variety of placement locations.



### Low frequency driver

This Advent designed low frequency driver develops deeper bass response than competitively sized loudspeakers. The special cone construction and flexible urethane surround are responsible for the smooth response throughout its operating range. This woofer is remarkable in its linearity to beyond 3200 Hertz. The carefully calculated balance of cone diameter, cabinet volume, and magnet strength contribute substantially to the power handling ability and uncommonly good bass response shown by the systems using this woofer.



### The crossover

The crossover network is often an underestimated consideration in the design of a loudspeaker system; however the crossover network chosen for the 2002 is the product of as much development time as any element of the system. It is the reason for the audibly seamless transition between drivers. One important advantage of designing and building drivers from the ground up (as Advent does) is the "fit" of the crossover to the driver. This complementary relationship, maximized in the 2002, makes for a system that can be driven easily by any amplifier or receiver.

### The cabinet

The cabinet is constructed of a dense, non-resonant composite board ideal for acoustic application. The careful placement of the drivers on the baffle board minimizes cabinet diffraction and the resulting response aberrations.

The proportions and crisp styling of the cabinet are in keeping with the Advent philosophy that a value-oriented loudspeaker system *can* be attractive; appearance is another important way a loudspeaker can give ongoing satisfaction.

### ADVENT

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TELEX 270643

## Advent Loudspeaker 2002 specifications

<b>Frequency response</b>	50Hz to 23kHz $\pm$ 3dB (on axis)
<b>Impedance</b>	8 ohms nominal 6 ohms minimum
<b>Resonance</b>	62Hz $\pm$ 2Hz
<b>Harmonic distortion</b>	1 watt: less than 1% over 80Hz
<b>Crossover frequency</b>	3.2kHz
<b>Sensitivity</b>	88dB at 1 watt in at 1 meter on axis
<b>Frequency range</b>	LF: 42Hz - 8dB HF: 22kHz - 3dB
<b>Size</b>	18½"H x 11"W x 8"D
<b>Weight</b>	16.5 lbs.
<b>Finish</b>	Walnut grain vinyl over high density composition board