STAX electrostatic earspeaker



- FIXED ELECTRODE
- O DIAPHRAGM
- § FIXED ELECTRODE
- 4 HUMIDITY PROTECTOR
- DAMPING MATERIAL

How Electrostatic Earspeaker Works

The electrostatic drive system, used in STAX earspeakers, employs a diaphragm coated with electrically conductive material suspended between two fixed electrodes with equal gaps on either side. A polarizing DC voltage is applied to the diaphragm so that when the audio signal is applied to the electrodes the diaphragm will be pushed forth and pulled back due to the repulsion and attraction of electrostatic charges.
At Stax, we perfected the world's first electostatic

headphones more than two and a half decades ago, and since then have been making constant refinements, all of which contribute to the remarkable fidelity of the SR-series earspeakers. The high polymer film used for the diaphragm in these earspeakers is less than 1/100 the thickness of the human eardrum-1.5 microns in the SR-APro, SR-X/MK3Pro, SR-I'Pro, and 2 microns in other electrostatic earspeakers. This ultrathin, ultralightweight diaphragm is driven with incredible accuracy by electrostatic forces. Therefore there is no transient distortion, no phase distortion, and no intermodulation distortion produced regardless of how loud or soft the music is, and throughout the entire audio frequency spectrum. This is in sharp contrast to the multitude of complex distortions inevitable in the conventional dynamic type of headphone with its need for a rigid, and therefore relatively heavy, diaphragm and accompanying magnet and voice coil structure. With STAX electrostatics, there are none of the peaks and dips in frequency response that

accompany other methods of reproduction. Pure sound goes directly to the listener's ears, which is why no one fails to be astounded the very first time they listen to music on electrostatic earspeakers. There is quite simply no comparison. And it would be inaccurate to call these ultra-high fidelity music reproduction devices "headphones", "Earspeakers" much better describes their uncompromising performance.

- The SR-5N is the direct descendant of the SR-1, our first-born earspeaker. Sound is even more lifelike-an incredible realism, accuracy of tonal balance, and unbelievable detail, scarecely attainable with even the most sophisticated loudspeakers. It is rated high among audiophiles, broadcast stations and record industries.
- The SR-X/MK3 was developed in an effort to reproduce more musical information and detail; resolution is excellent. The small cavity-type ear pad design improves low-range response and the entire earspeaker has been biomechanically engineered with professional applications in mind. In the construction of all the SR-series earspeakers we have gone to great lengths to ensure even diaphragm tension and precise electrode gap tolerances. Electrical and insulation characteristics are excellent and materials are carefully chosen for their long-term durability and resistance to physical shock and damage. All units are manufactured under strict quality control.
- As its innovative appearance reveals, the Lambda Junior i.e. SR-84 electret earspeaker system consisting of the SR-80 earspeaker and the SRD-4 adaptor is a direct successor of the SR-A. Like the SR-A, the unique open back type enclosure plays an important role in sound reproduction. For the SR-80 we adopted a permanently polarized electret diaphragm to eliminate power supply for polarizing voltage. All you have to do to enjoy the finest sound from the SR-80, therefore, is to connect the SRD-4 adaptor to your amplifier's speaker terminals. The selector switch on the SRD-4 front panel lets you readily choose between your loudspeaker system and the SR-80. The compact enclosure with soft earpads and light-weighted headband adds more to the neat and transparent reproduction of the SR-84.
- The SR-34, a combination of the SR-30 electret earspeaker and the SRD-4 adaptor, is the first earspeaker that has realized an exellent quality versus cost ratio. No other headphone at this price range could offer such clear, detailed, distortion-free sound as the SR-34. The same electret diaphragm as the SR-80 is employed for the SR-30, so that you can simply connect the SRD-4 adaptor to your amplifier's speaker terminals. The SRD-4 front panel selector allows you to easily switch back and forth between your loudspeakers and the SR-30. The soft earpads along with the biomechanically engineered headband contributes to non-fatigueing listening to music.



