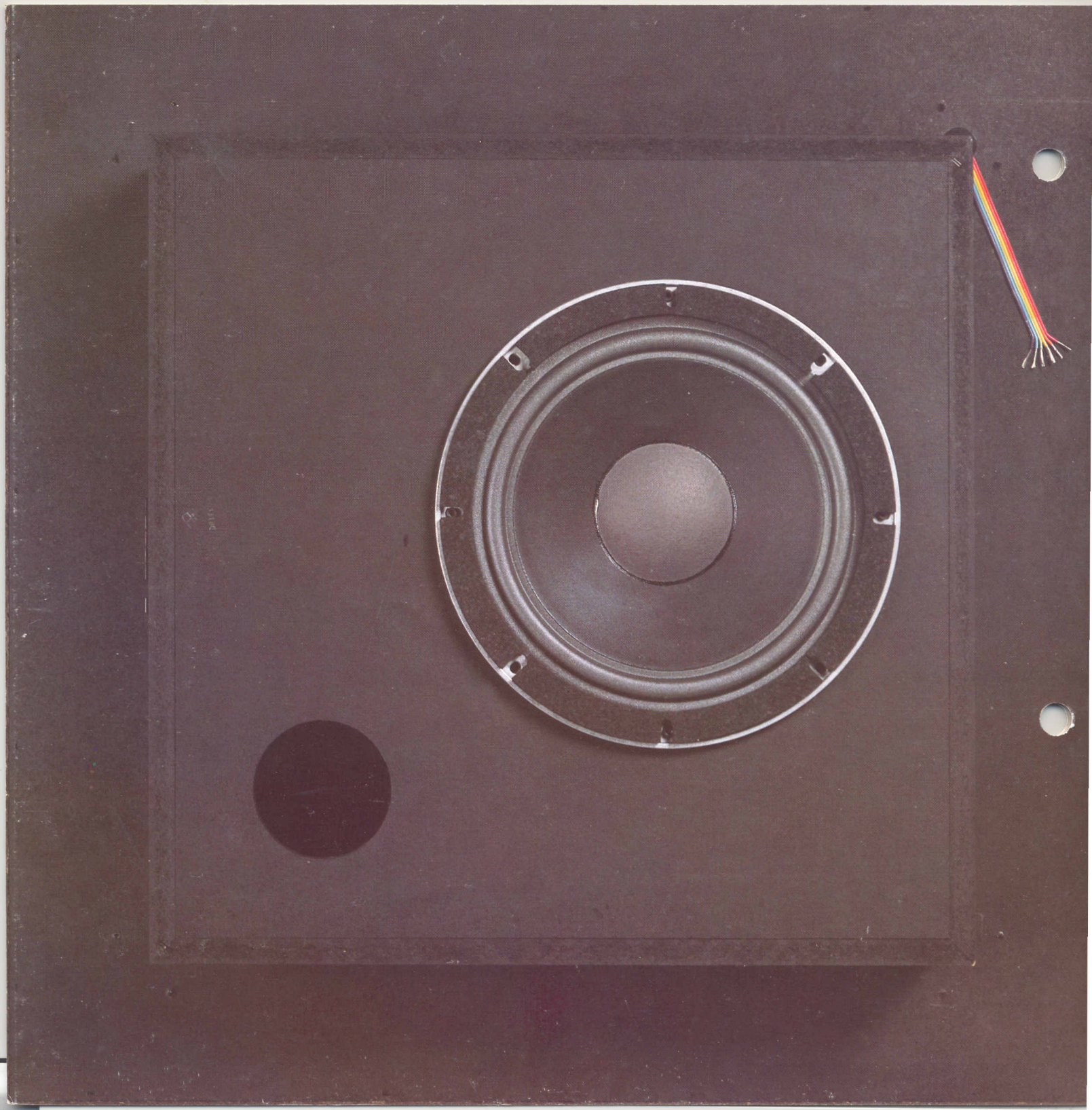
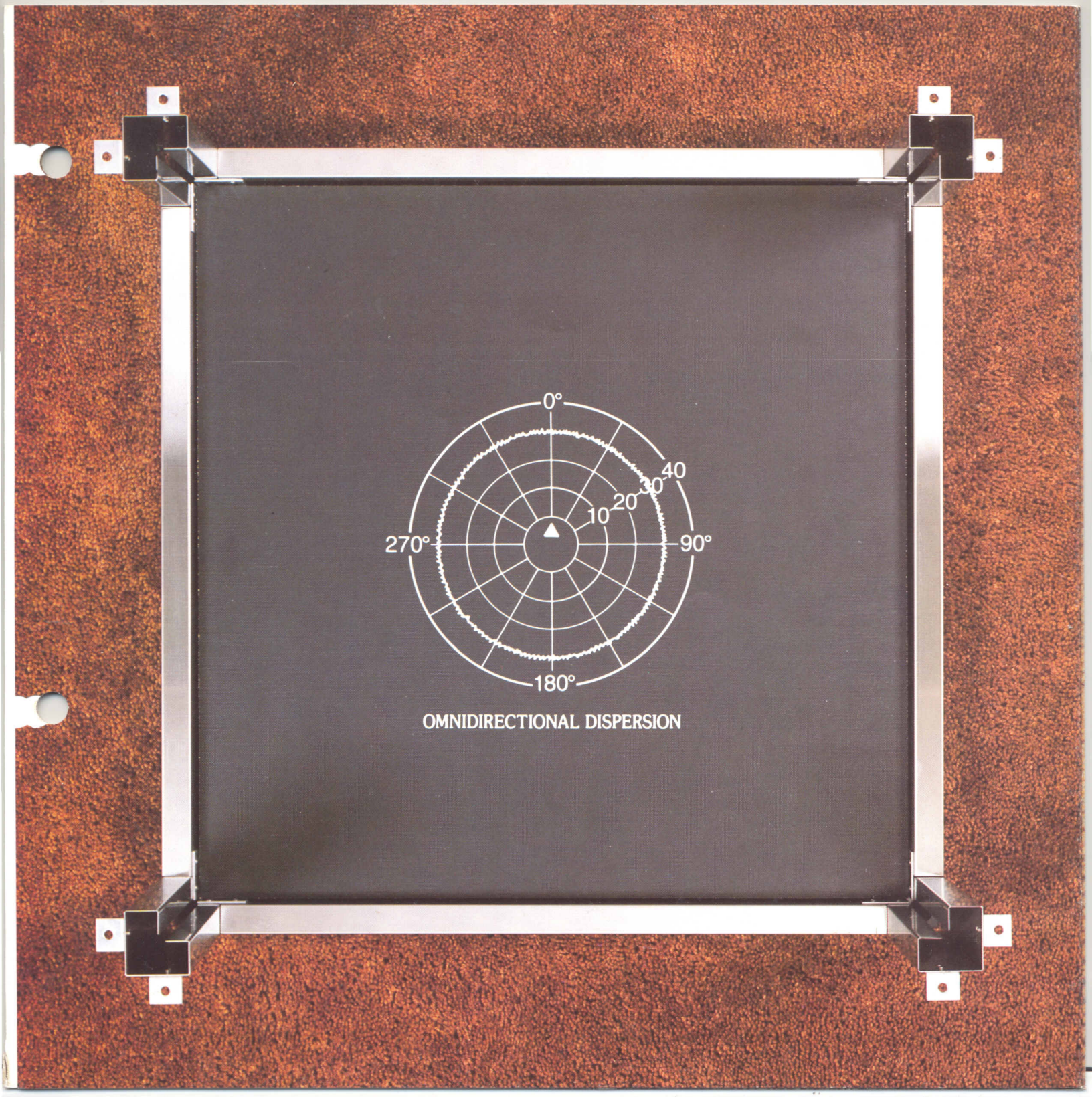

ALTEC'S NEW SUBWOOFER
FROM TOP TO BOTTOM.



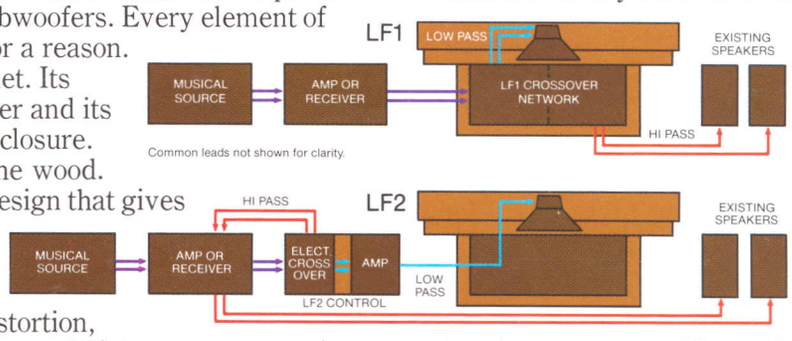


OMNIDIRECTIONAL DISPERSION

Altec Lansing's new LF-1 and LF-2 universal subwoofers are the most uniquely-designed speakers you have ever heard. Or seen.

From top to bottom, the LF-1 and LF-2 have been carefully engineered to solve all of the inherent shortcomings found in other manufacturer's previous attempts to create subwoofers. Every element of our design is there for a reason. The size of the cabinet. Its shape. The bass driver and its relationship to the enclosure. Even the choice of the wood.

The result is a design that gives your system two more full octaves of additional frequency response, reduced distortion, greater dynamic range and higher power capacity. All with practicality, convenience and style. (Try to find all that in another speaker.)



STARTING AT THE TOP.

The first thing you notice about these Altec speakers is that they look like sculptured furniture. Handsome tables topped with a wood you have never seen before: Endriana, a rare veneer from special reserves in the South Pacific.

Endriana gives our cabinets their striking aesthetics that complement any decor. And because these speakers are truly omnidirectional, you have the freedom to place them literally anywhere in the room, to fit perfectly into your environment.

If they were nothing but great furniture, these subwoofers would make a nice addition to any home. But obviously their design is only the beginning.

The cabinet is the result of intensive computer-aided research into enclosure design. It is specially vented and tuned to yield the maximum efficiency with the 12″ bass driver.

THE HEART OF OUR SYSTEM.

If you could see inside the LF-1, you would find that our 12″ driver features a remarkable dual-voice-coil that provides a center channel mix of low frequency program material from left and right channels of any receiver or amplifier.

The LF-1 uses passive crossover circuitry with a fixed crossover point at 80 Hz. You simply adjust the sensitivity over an 18 dB range to match your existing speaker system.

The LF-2 comes complete with its own low frequency amplifier which turns any system into a biamplified one. This means that each amp gets to do specialized work. Since no demand is made on your original amp to produce subwoofer energies, distortion is virtually eliminated, while dynamic range is enhanced to the fullest.

The LF-2 electronic crossover network has frequency-selectable crossover points at 80 Hz, 60 Hz, and 40 Hz. Again, sensitivity may be adjusted to match virtually any existing speaker system. And as an extra bonus, the LF-2 gives you a choice of two listening

modes: normal subwoofer or double-bass, which is great for those times when you want to reproduce extra low bass energy, such as disco music.

BRINGING UP THE REAR.

With the LF-1 and LF-2 subwoofers, low frequencies are boosted to exactly the right levels to achieve equal perceived loudness of all frequency ranges, even at low or moderate listening levels.

This feat is something even so-called "full-range" speakers can't actually do in a realistic manner. In fact, conventional speakers are purposely designed to roll-off before producing the lowest frequencies, and for very good reasons.

First is the problem of speaker damage. The large pumping motion required to reproduce these very low notes at levels approaching equal loudness could easily burn-out regular speakers.

Second is the problem of distortion of higher frequencies. If a regular speaker cone produced these low octaves, it would cause interference, or "Doppler" distortion. When speaker cone motion is large, the Doppler effect manifests itself by constantly raising and lowering the perceived pitch of the upper frequency music being radiated by the same cone or other cones in the same enclosure.

The LF-1 and LF-2 solve both of these difficult problems by freeing your system's other speakers from having to handle these low frequencies. By splitting away the low bass energies from the main speakers, Altec subwoofers let your full range speakers concentrate on the thing they do best: producing mid and upper frequencies. For your ears, it means greatly improved frequency response and enhanced power capacity. In addition, the entire range of sound becomes cleaner, more effortless and life-like. Distortion becomes a thing of the past.

THE ONLY SPEAKER THAT CAN TURN DOWN THE POWER.

Whenever incoming power levels exceed safe limits, conventional speakers either shut down by blowing a fuse (or circuit breaker) or they continue to play and run the risk of sustaining damage. The LF-1 and LF-2 give you another alternative. They have a special electronic circuit that automatically lowers the power the speaker receives, without shutting down the system. We call this our Automatic Power Control system. Not only does it enable you to have uninterrupted speaker operation during high transient peaks in the program material, it is also ingenious enough to tell you what is happening by turning on a red warning light on the control panel.

THE BOTTOM LINE.

At this point, you're probably wondering if all this great technology sounds as good in your ears as it looks on paper. Actually, it sounds even better. Or to be precise, sounds and feels even better. Because with Altec subwoofers, you actually add the feel-it-in-the-body sensation that makes live music live. The impact and richness of an extra acoustic dimension you'll appreciate every moment your system is operating, regardless of whether you're playing records, tapes or just the radio.

In fact, through improved recording techniques, direct-to-disk recording, digital mastering and the quality of today's performances, the need for Altec subwoofers has never been greater. The low bass content and wide dynamic range are there.

With the LF-1 or LF-2, you'll hear it all. From top to bottom.

SPECIFICATIONS	LF-1	LF-2
SPEAKER COMPONENTS:	12″ (30.5 cm) dual voice coil subwoofer	12″ (30.5 cm) subwoofer
NOMINAL IMPEDANCE:	8 ohms	8 ohms (voice coil) 47k ohm (input)
CROSSOVER FREQUENCY:	80 Hz	40, 60, 80 Hz selectable
ENCLOSURE TYPE:	Vented	Vented
SENSITIVITY: Measured at 1 meter, 1 watt input, using broadband pink noise.	94 dB SPL	94 dB SPL
FREQUENCY RESPONSE:	20-80 Hz±5 dB	20-80 Hz±3 dB
DYNAMIC RANGE: Minimum crest factor above 60 dB SPL at 1 meter.	52 dB	52 dB
DISPERSION:	360°; true omnidirectional	360°; true omnidirectional
AMPLIFIER OPERATING RANGE: Recommended minimum and maximum amplifier	50-350 watts	N/A
MAXIMUM LONG TERM ACOUSTIC OUTPUT: Measured at 1 meter using broad-band pink noise.	112 dB SPL	112 dB SPL
FINISH:	Catalyzed lacquer on Diamond-matched Endriana.	Catalyzed lacquer on Diamond-matched Endriana.
DIMENSIONS:	36″ x 36″ x 16″ H (91.5 cm x 91.5 cm x 40.6 cm H)	36″ x 36″ x 16″ H (91.5 cm x 91.5 cm x 40.6 cm H)
AMPLIFIER POWER OUTPUT: TOTAL HARMONIC DISTORTION	N/A N/A	85 watts .1%

ALTEC LANSING®

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