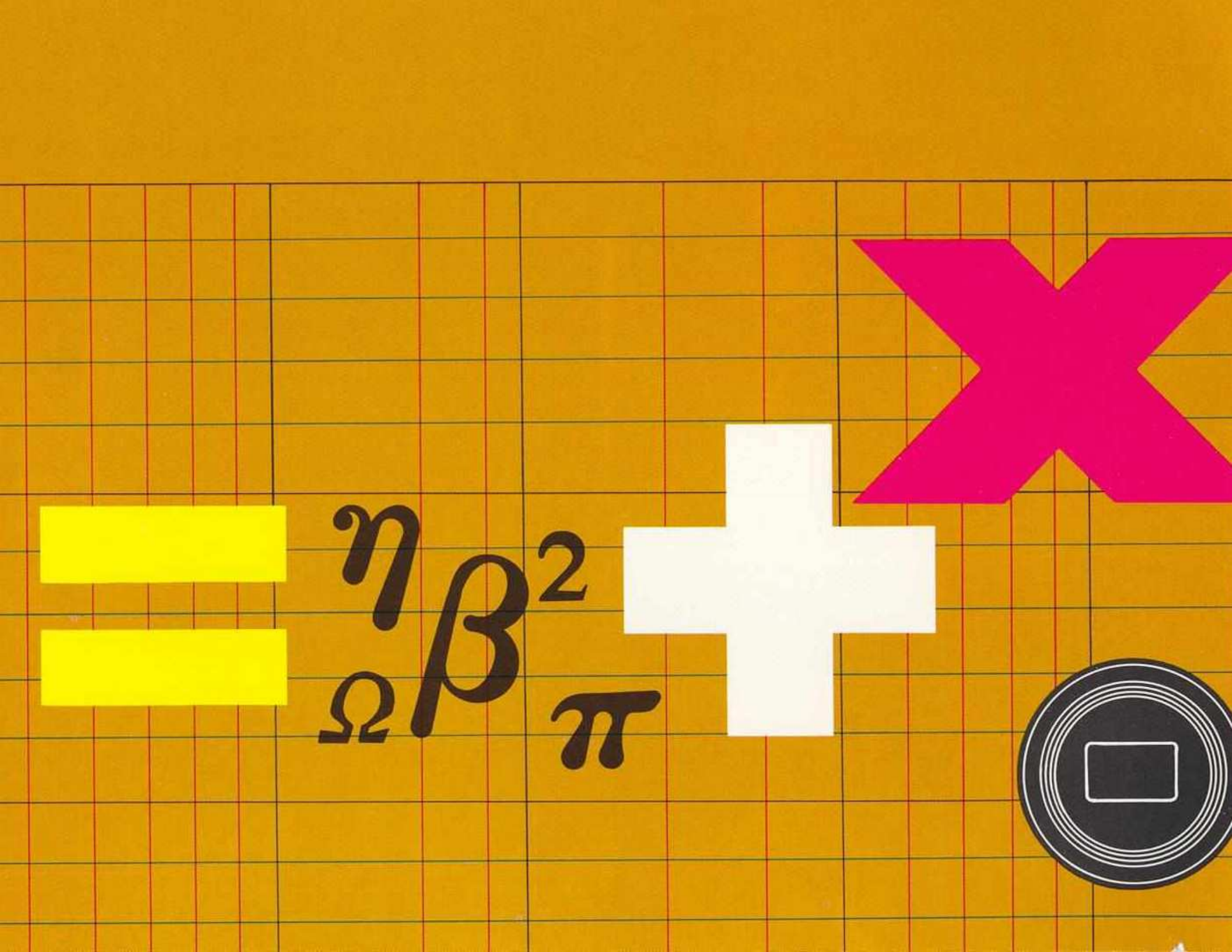

ALTEC
LANSING



ABOUT OUR CATALOGUE

We at Altec Lansing have long been proud of the heritage we possess — over four decades of leadership in professional sound. Recording studio monitors, theatre sound systems, permanently installed high level sound reinforcement systems, portable sound reinforcement equipment—the list of Altec Lansing leadership goes on. Wherever professionalism in sound is the requirement, Altec Lansing is there.

We have carried our tradition of quality and professionalism into every facet of our involvement—and now with a special emphasis on equipment for the home. We have pooled our traditions, talents, and experience in engineering, design, and manufacturing to produce a most comprehensive line of quality loudspeakers and speaker systems—products of professional quality and heritage, yet products that will enhance any living environment.

In many cases these products are identical or share the same components as products destined for professional application. We, more than anyone, understand the differences and the similarities in requirements for professional products and home high fidelity reproducers. Quite often the home reproducer can pose a completely different set of performance criteria to challenge the creativity of the design team. We have accepted this challenge, and the products displayed in this catalogue exemplify the output of our creative efforts, designed especially for use in the living environment.

This catalogue is not only intended to display our products, but to represent our philosophy as well. That philosophy is one of optimization. Optimization of science, art, talent, and effort, resulting in the optimum in performance, styling, and value. We now bring to you, through this catalogue, a statement of that philosophy interwoven with a display of what we feel is the finest line of high fidelity reproducers available. We trust that this catalogue will make easier one of the most difficult purchasing decisions facing the consuming world: The choice of a high fidelity speaker system.

We are confident that after examining our product line and reviewing the philosophy presented by this catalogue, there will be but one choice open.

ALTEC LANSING

RIES II

Second Generation of Altec Lansing's kshelf Models

aps more than any other single audio ponent, the speaker-on-the-shelf has e to represent Hi Fi. Its classic design compact size have made it a favorite the d over. But all bookshelf speakers are far being equal.

Altec Lansing, we have always believed our speakers should deliver outstanding ormance. So we invest years of research refinement in every product we make. he result of this effort — the Series II kshelf Line.

ve speakers — each an exceptional per- er. Each made better by subtle changes coustic design, construction techniques material selection. Changes like the new id magnet design found in the Models through Seven.

ntil now, speaker magnet structure design either of the traditional Alnico or ceramic

he Alnico type uses a voice coil that ounds the magnet. It has been found, ever, that the interaction of the voice coil the magnet will eventually cause the net to partially demagnetize. The result is ss of sensitivity and a muddy bass sound. he ceramic magnet poses a different blem. Here the voice coil moves around ole piece and is surrounded by the net. The thinner magnet, however, creates earance problem for the voice coil. he Altec Lansing hybrid magnet design bines the best of both magnet types. The design still has the magnet around the e coil, but the new "top hat" design inates the clearance problem.

f course the one thing we would never nge is the quality that Altec Lansing is wn for. We still make all our own speaker nponents and all our bookshelf speakers finished with real wood veneers.

o if you're looking for top performance nbined with the classic appearance of a kshelf speaker, ask your Altec Lansing ler for a demonstration of the Series II akers. We don't think you'll have to look further.

Photos are for illustrative purposes only and may not reflect latest model changes.

	(A) MODEL ONE SERIES II	(B) MODEL THREE SERIES II	(C) MODEL FIVE SERIES II	(D) MODEL SEVEN SERIES II	(E) MODEL NINE SERIES II
SPEAKER COMPONENTS					
LOW FREQUENCY:	8" bass driver	10" bass driver	12" bass driver	12" bass driver	12" bass driver
MID FREQUENCY:				6½" frame cone driver	6½" frame cone drive
HIGH FREQUENCY:	4" frame cone driver	4" frame cone driver	2 each 4" frame cone drivers	4" frame cone driver	5" frame cone driver
NOMINAL IMPEDANCE:	8 ohms	8 ohms	8 ohms	8 ohms	8 ohms
CROSSOVER FREQUENCY:	3500 Hz	1500 Hz	1500 Hz	850 Hz, 8 kHz	800 Hz, 7 kHz
ENCLOSURE TYPE:	Sealed	Vented	Vented	Vented	Vented
SENSITIVITY: Measured at 4 feet, 1 watt input referenced to 8 ohms, using pink noise which has been limited to a bandwidth of 500 Hz to 3 kHz.	89 dB SPL	90.5 dB SPL	91.5 dB SPL	90 dB SPL	93 dB SPL
FREQUENCY RESPONSE:	50 Hz to 20 kHz	50 Hz to 20 kHz	45 Hz to 20 kHz	45 Hz to 20 kHz	40 Hz to 20 kHz
DISPERSION: Measured with pink noise limited to bandwidth of 800 Hz — 8 kHz at a distance of 4 feet.	120° at —6 dB vertical 125° at —6 dB horizontal	120° at —6 dB vertical 140° at —6 dB horizontal	90° at —6 dB vertical 120° at —6 dB horizontal	120° at —6 dB vertical 130° at —6 dB horizontal	110° at —6 dB vertic 115° at —6 dB horizo
LONG TERM BROAD BAND MAXIMUM POWER: Measured with a source of pink noise limited to the frequency response bandwidth of the system, over an extended time period.	30 watts	35 watts	45 watts	50 watts	60 watts
AMPLIFIER OPERATING RANGE:* Recommended minimum and maximum amplifier power.	10 watts to 75 watts	10 watts to 100 watts	12 watts to 150 watts	15 watts to 200 watts	12 watts to 250 watts
LONG TERM MAXIMUM ACOUSTIC OUTPUT: Measured with a source of pink noise limited to the frequency response bandwidth of the system at a distance of 4 feet.	104 dB SPL at 30 watts	106 dB SPL at 35 watts	108 dB SPL at 45 watts	107 dB SPL at 50 watts	110.5 dB SPL at 60 w
FINISH:	Hand-rubbed oiled walnut	Hand-rubbed oiled oak	Hand-rubbed oiled walnut	Hand-rubbed oiled walnut	Hand-rubbed oiled oa
GRILLE:	Acoustically transparent brown knit fabric mounted on removable frame	Acoustically transparent black knit fabric mounted on removable frame	Acoustically transparent black knit fabric mounted on removable frame	Acoustically transparent foam mounted on removable panel. Choice of black or brown	Acoustically transpar panel. Choice of blac foam mounted on rem brown
DIMENSIONS:	22½"H x 12"W x 11"D 57cm H x 30.5cm W x 28 cm D	24"H x 12½"W x 11½"D 60.9cm H x 31.8cm W x 29.2 cm D	25½"H x 14½"W x 12"D 64.8cm H x 36.8cm W x 30.5cm D	25"H x 16"W x 14⅛"D 63.5cm H x 40.6cm W x 35.9cm D	26½"H x 17½"W x 67.3cm H x 44.5cm W x 38.1cm D
SHIPPING WEIGHT:	30 lbs. — 27.2 kg (2 units per carton)	32½ lbs. — 14.7 kg	38¼ lbs. — 17.4 kg	49¼ lbs. — 22.3 kg	64 lbs. — 29 kg
NET WEIGHT:	26 lbs. — 11.8 kg	26¼ lbs. — 12 kg	32 lbs. — 14.5 kg	43¾ lbs. — 20 kg	56 lbs. — 25.4 kg

*Amplifier operating range is for amplifier selection guidance only. Do not mistake it for the speaker's power capacity. Refer to page 16 for further clarificati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EAST FOR THE EARS

ur Contemporary Floor-Standing Models

ssionals in the music industry—recording engineers, cians, acoustical engineers—all demand and expect osest thing to realism in sound reproduction. For four des Altec Lansing has met this challenge in producing standards for the industry.

w we offer our latest contribution in professional oring to home Hi Fi buyers. Our intense engineering rch has resulted in dynamic new performance in al systems. And we have found overwhelming evi- e to prove that proper tuning for vented enclosures esult in superb low frequency performance.

ur floor-standing models speak for the quality, profes- lism and creativity of design that is Altec Lansing. include the Model 19, Model 18, Model 15, and the ana II—each one utilizing components that are ned and manufactured exclusively by Altec Lansing. pt for the 18, each system may stand freely in a room beautiful hand-rubbed wood on all sides.

e top-of-the-line Model 19 as well as the Models 18 5 utilize a new high-frequency driver built around the erine™ radial phase plug. And there's an innovative dividing network/equalizer featuring both mid- and -frequency level controls. The Model 18, developed ifically for critical, professional studio monitoring, res the 604-8H speaker, the reference standard of the rding industry for decades. The 604-8H features a new design which we call Mantaray™*. The Mantaray is a ue design in horn technology. It is the product of very isticated computer analysis of horn and driver edance, amplitude and directivity characteristics. a true "constant directivity" design, which means that lispersion is constant at all frequencies: a theoretical lenge which is now a reality.

ompleting the floor-standing line is the Santana II, a way system with 12-inch bass driver and a 5-inch -frequency driver. The Santana II is walnut with position-slate top, a perfect balance of great sound functional furniture.

S. and Foreign Patents pending.

Photos are for illustrative purposes only and may not reflect latest model changes.

	(A) NINETEEN •	(B) EIGHTEEN •	(C) FIFTEEN •	(D) SANTANA II
SPEAKER COMPONENTS				
LOW FREQUENCY:	15" bass driver (416-8B)	15" driver with coaxially mounted constant-directivity control horn and compression driver (Model 604-8H)	12" bass driver	12" bass driver
HIGH FREQUENCY:	Radial Phase Plug driver mounted to 811B sectoral horn		Radial Phase Plug driver mounted to curved radial horn	5" frame cone driver
NOMINAL IMPEDANCE:	8 ohms	8 ohms	8 ohms	8 ohms
CROSSOVER FREQUENCY:	1200 Hz	1500 Hz	1700 Hz	2500 Hz
ENCLOSURE TYPE:	Vented	Vented	Vented	Vented
SENSITIVITY: Measured at 4 feet, 1 watt input, using pink noise which has been limited to a bandwidth of 500 Hz to 3 kHz.	99 dB SPL**	103 dB SPL	93 dB SPL**	89 dB SPL
FREQUENCY RESPONSE:	30 Hz to 20 kHz	30 Hz to 20 kHz	30 Hz to 20 kHz	40 Hz to 20 kHz
DISPERSION: Measured with pink noise limited to a bandwidth of 500 Hz — 8 kHz at a distance of 4 feet.	105° at —6 dB vertical 105° at —6 dB horizontal	50° at —6 dB* vertical 70° at —6 dB* horizontal	120° at —6 dB vertical 120° at —6 dB horizontal	130° at —6 dB vertical 130° at —6 dB horizon
LONG TERM BROAD BAND MAXIMUM POWER: Measured with a source of pink noise limited to the frequency response bandwidth of the system over an extended time period.	65 watts**	65 watts	60 watts**	45 watts
AMPLIFIER OPERATING RANGE:*** Recommended minimum and maximum amplifier power.	10 watts to 350 watts	10 watts to 350 watts	12 watts to 250 watts	12 watts to 150 watts
LONG TERM MAXIMUM ACOUSTIC OUTPUT: Measured with a source of pink noise limited to the frequency response bandwidth of the system at a distance of 4 feet.	117 dB SPL at 65 watts**	118 dB SPL at 65 watts	108 dB SPL at 60 watts**	107.5 dB SPL at 45 wa
FINISH:	Hand-rubbed oiled walnut or oak	Hand-rubbed oiled oak	Hand-rubbed oiled oak or walnut	Hand-rubbed oiled wal with composition slat
GRILLE:	Acoustically transparent knit fabric mounted on removable frame. Black supplied with walnut, brown with oak cabinet	Visually and acoustically transparent knit fabric mounted on removable frame	Acoustically transparent foam mounted on removable panel. Black supplied with walnut, brown with oak cabinet	Acoustically transpare black knit fabric mou on removable frame
DIMENSIONS:	39"H x 30"W x 21"D with base and grille 99.6cm H x 76.2cm W x 53.3cm D	40"H x 26"W x 18"D 102cmH x 66cmW x 45.7cm D	27"H x 22"W x 15½"D with base and grille 68.6cm H x 55.9cm W x 38.7cm D	25⅝"H x 19"W x 16"D 65.9cm H x 48.3cm W x 40.6cm D
SHIPPING WEIGHT:	166 lbs. — 72.3 kg	168 lbs. — 77.1 kg	84 lbs. — 38.1 kg	67 lbs. — 30.4 kg
NET WEIGHT:	143 lbs. — 64.9 kg	138 lbs. — 62.6 kg	76 lbs. — 34.5 kg	57 lbs. — 25.9 kg

*800 Hz — 8 kHz

• Tangerine™ radial pha

**Measured with shelving controls set at optimum.

***Amplifier operating range is for amplifier selection guidance only. Do not mistake it for the speaker's power capacity. Refer to page 16 fo clarification.


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C
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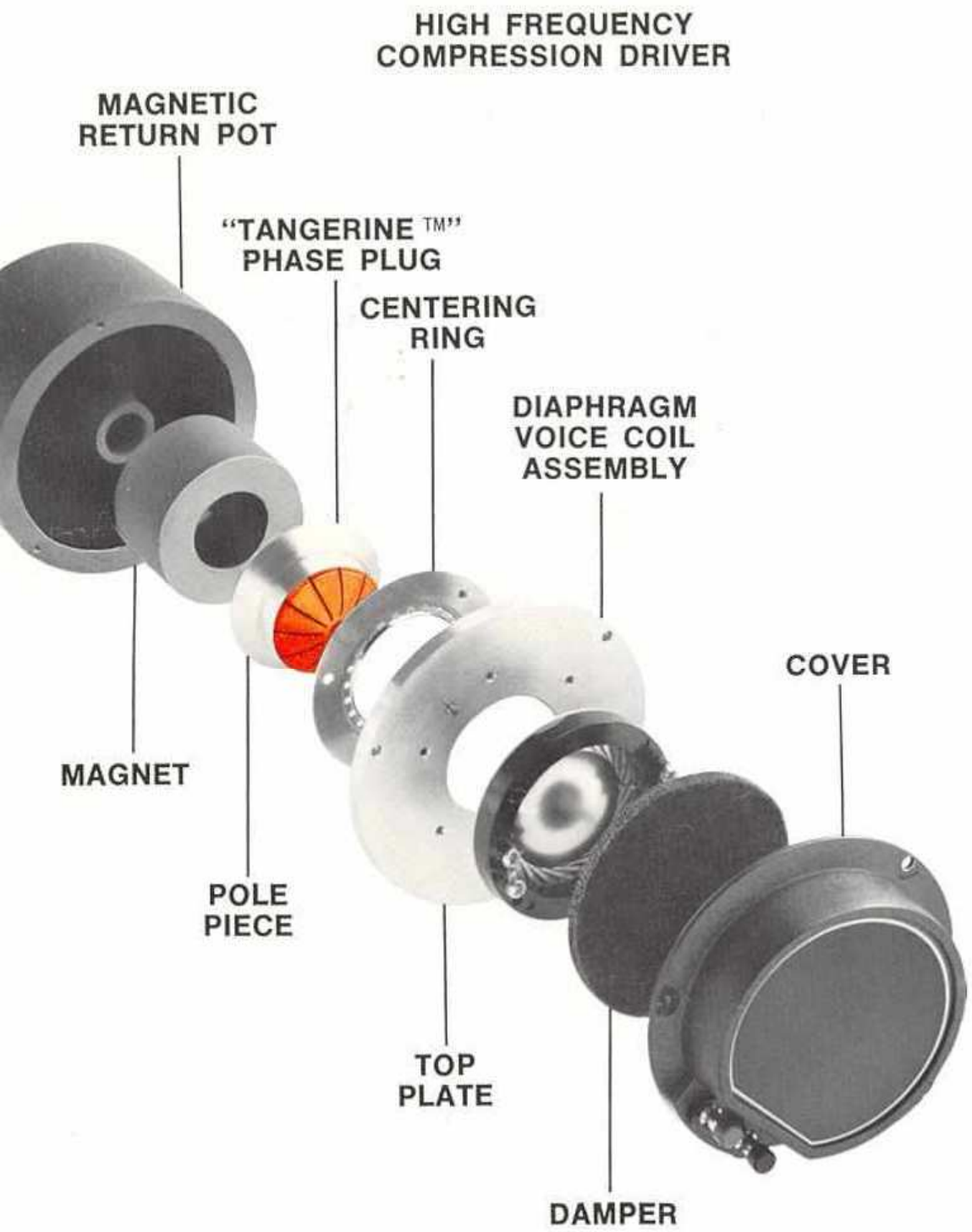


INTRODUCING THE TANGERINE™

High frequency compression drivers used by most companies contain a circumferential type phase plug which was developed by our noble ancestor, Western Electric, in the 1920's.

Our new radial plug, the Tangerine™— looking very much like a peeled tangerine and hence its name — allows far more high-frequency energy to enter the horn than traditional phase plugs. And so high-frequency response is extended.

The super Models 19, 15, A7X, and 18 all feature this remarkably improved element along with an improved equalizer/crossover network that permits smooth, gradual equalization of the mid and high frequencies.

. . . and the improved 802-8G Driver

In addition to the Tangerine™ phase plug design, the 802-8G employs stronger, lighter epoxies for a lighter moving assembly and improved power capacity. This new high-frequency driver also features sub-crossover resonance and equalized pressure loading for lower distortion.

OICE OF THE THEATRE — A Legend

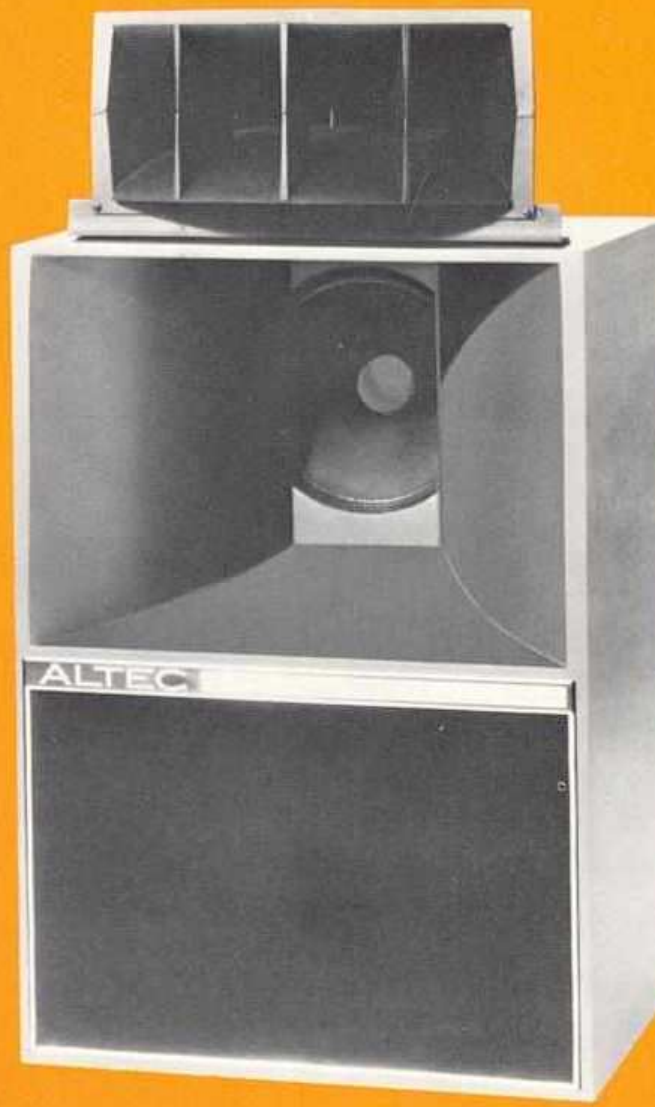
e Voice of The Theatre. Known by name, own by sight and known by reputation as gend.
n the 1950's the Academy of Motion Picture s and Sciences officially recognized the Voice The Theatre as *the standard* in motion picture atre sound. Once an exclusively professional duct, it became the system demanded by diophiles who insisted on its unparalleled sence and efficiency for their homes.
Today, the excitement, drama, emotion and lism of movie sound is duplicated by the ce of The Theatre.
Tight low-frequency response, high-frequency jection and power handling capability, trade-rks of the Voice of The Theatre, are refined new levels of perfection in our all-new A7X. tilizes the patented Tangerine™ radial phase g in the powerful 802-8G driver, and the new del N1201-8A equalizer/dividing network h a crossover frequency of 1200 Hz.

Excellent frequency response, bandwidth, power capacity and acoustic output are all featured in this system and must be experienced to be believed.

	A7X •
AKER COMPONENTS	15" bass driver (416-8B)
OW FREQUENCY:	
IGH FREQUENCY:	• 802-8G compression driver mounted to 511B sectoral horn
INAL IMPEDANCE:	8 ohms
SSOVER FREQUENCY:	1200 Hz (N1201-8A network)
LOSURE TYPE:	Horn-loaded with reflex port
SITIVITY: sured at 4 feet, 1 watt input referenced to 8 ohms, using pink noise which has been limited to a bandwidth of 500 Hz to 3 kHz.	100 dB SPL
QUENCY RESPONSE:	45 Hz to 20 kHz
PERSION: asured with pink noise limited to a bandwidth of 500 Hz to 8 kHz.	60° at —6 dB vertical 90° at —6 dB horizontal
G TERM BROAD BAND MAXIMUM POWER: sured with a source of pink noise limited to the frequency response bandwidth of the system, over an extended time period.	100 watts
PLIFIER OPERATING RANGE:* ommended minimum and maximum amplifier power	10 watts to 350 watts
G TERM MAXIMUM ACOUSTIC OUTPUT: sured with a source of pink noise limited to the frequency response bandwidth of the system at a distance of 4 feet.	120 dB SPL at 65 watts
ISH:	Metallic gray
IENSIONS:	52¼"H x 30"W x 24"D 137.8cm H x 76.2cm W x 61.2cm D
PPING WEIGHT:	163 lbs. — 76.2 kg
TUAL WEIGHT:	142 lbs. — 64.54 kg

Tangerine™ radial phase plug.

mplifier operating range is for amplifier selection guidance only. Do not mistake it for the speaker's power capacity. Refer to page 16 for rther clarification.



TENDED RANGE LOUDSPEAKERS

8H (15″) Duplex Monitor.*

a standard of the professional recording stry, the 604 series presents a degree of ction known to no other single precision educer. Outstanding efficiency is the result high-frequency driver and horn coaxially nted to a highly efficient low-frequency ker. The unique constant-directivity horn call it Mantaray™)* produces the same ersion pattern regardless of frequency. Once rded as a theoretical impossibility, it is now lity. A unique, dual-variable equalizer/ ing network is included.

A (4″).

s size, the 405A will reproduce speech ly and music well with a frequency response to 1500 Hz. It performs admirably in an osure between ¼ and 1 cubic foot, and ins a favorite in automobile sound llations.

LOW FREQUENCY LOUDSPEAKERS

416-8B (15″).

As the woofer used in the A-7 series Voice of The Theatre Systems, the professional quality 416-8B yields smooth response with extraordinary linearity. It combines nicely with an Altec Lansing compression driver, sectoral horn, and dividing network.

411-8A (15″).

A woofer of medium efficiency, the 411-8A is designed to work in a sealed enclosure having an internal volume range from 4 to 8 cubic feet.

414-8C (12″).

Used extensively in high accuracy reproduction as well as in professional studios, the 414-8C has the power capacity for excellent high fidelity. It is designed for use in 2½ to 10 cubic feet enclosures.

	604-8H *	416-8B	411-8A	414-8C	405A
ANCE:	8 ohms	8 ohms	8 ohms	8 ohms	8 ohms
OVER ENCY:	1500 Hz	——	——	——	——
SIONS:	16″ (40.6 cm) diameter 11⅞″ (28.3 cm) deep	16″ (40.6 cm) diameter 7″ (17.8 cm) deep	15 5/16″ (38.9 cm) diameter 5⅞″ (14.9 cm) deep	12¼″ (31.1 cm) diameter 5¾″ (14.6 cm) deep	4⅜″ (11.1 cm) square 2 1/16″ (5.4 cm) deep
T:	34.0 lb. 15.4 kg (includes dividing network)	17½ lb. 7.9 kg	20½ lb. 9.3 kg	15 lb. 6.8 kg	2 lb. 0.9 kg
:	Dark gray enamel	Dark gray enamel	Dark gray enamel	Dark gray enamel	Gray enamel
ING DATA— OPENING:	14⅛″ (35.9 cm) (front or rear mounting)	14⅛″ (35.9 cm) (front or rear mounting)	14⅛″ (35.9 cm) front mounting 13¾″ (34.9 cm) rear mounting	11⅛″ (28.3 cm) diameter (front or rear mounting)	4 3/32″ (10.6 cm) front mounting 3 13/16″ (9.7 cm) rear mounting
ING BOLT RS:	8 or 4 bolts equally spaced on 15″ (38.1 cm) diameter circle	8 or 4 bolts equally spaced on 15″ (38.1 cm) diameter circle	14⅝″ (37.1 cm) diameter circle	4 bolts equally spaced on 11 5/16″ (29.4 cm) diameter circle	4 bolts equally spaced at 90° on 4 11/16″ (11.9 cm) diameter circle
EMENTARY NENTS:	Dual equalizer dividing network (supplied)	811B horn, N1201-8A network 802-8G driver, 511B horn,	811B horn, 802-8G driver, 511B horn,	802-8G driver, 811B horn, N1201-8A network	——

erine™ radial phase plug.
and Foreign Patents pending.


604-8H

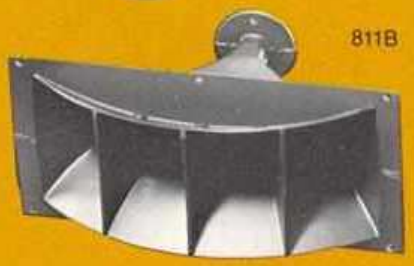

416-8B


411-8A


414-8C


405A

511B



811B

802-8G

N1201-8A

HIGH-FREQUENCY LOUDSPEAKERS

511B, 811B Sectoral Horns.

The wide horizontal shaping of the cast aluminum sectoral horn tightly controls the very important dispersion pattern of sound. When equipped with a compression driver, these horns reproduce the full range of frequencies, while maintaining uniform directivity.

802-8G High-Frequency Compression Driver.

Compression drivers are capable of a much wider bandwidth and vastly higher sensitivity than cone-type high frequency reproducers, making possible extremely high sensitivity in two-way systems when coupled with appropriate bass speakers. The Tangerine™ radial phase plug in the 802-8G yields extended frequency response.

N1201-8A Equalizer/Dividing Network.

Altec Lansing precision crossover networks are designed to optimally match the frequency response of compression drivers and horns to bass drivers. The highly sophisticated Model 19 and A7X monitor systems contain the remark N1201-8A variable equalizer/dividing netwo which offers smooth, gradual equalization. T feature is highly desirable in adjusting speak to the acoustic properties of the room and to personal listening tastes.

	HIGH-FREQUENCY COMPRESSION DRIVER	SECTORAL HORNS		DIVIDING
	802-8G •	511B	811B	N1201-
IMPEDANCE:	8 ohms	—	—	8 ohms
MINIMUM CROSSOVER FREQUENCY:	1200 Hz*	500 Hz	800 Hz	1200 H
DIMENSIONS:	4½" (11.43 cm) diameter, 3 13/16" (9.7 cm) deep	10⅝"H x 23½"W x 18½"D 27.0cm H x 59.7cm W x 47.0cm D	8⅝"H x 18½"W x 13½"D 21.9cm H x 47.0cm W x 39.3cm D	7½"H x 8⅞" 19.0cm 11.4cm 22.8cm
WEIGHT:	7 lb. 3.18 kg	12.3 lb. 5.6 kg	9 lb. 4.1 kg	4 lb. 1.8 kg
FINISH:	Dark gray enamel	Flat black	Flat black	Flat bl
COMPLEMENTARY COMPONENTS:	511B, 416-8B, 414-8C, N1201-8A, 811B	802-8G, 411-8A, 416-8B, N1201-8A	802-8G, 411-8A, 416-8B, 414-8C, N1201-8A	811B, 416-8 802-8

• Tangerine™ radial phase plug.

*The 802-8G may be used as low as 500 Hz with system input power not exceeding 35 watts.

MPONENTS AND THEIR MATCHING SYSTEMS

u are planning to build your own enclos-
, we have provided for you a set of guide-
s for completing a variety of systems. For
convenience, we have provided this sys-
guide with which to select the compo-
s that will best suit your needs.

System Components for A7X

System Components for Model 19

CIFICATIONS DEFINED

is their significance?
are they measured?

eaker manufacturers have their ethods for evaluating and rating rformance of their products, and sal measuring techniques for characteristics are impossible to ve. While we cannot offer a means ciphering other manufacturers' ications, we do offer an explana- our own.

ker Components

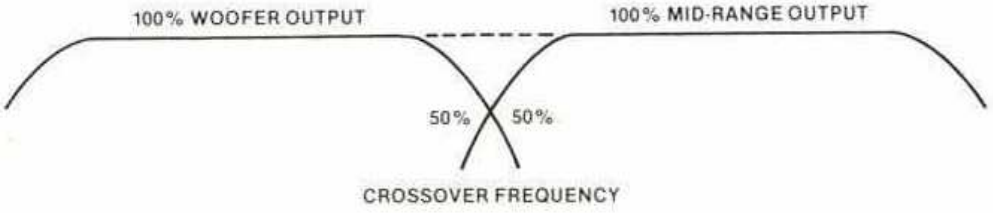
our low-frequency and mid- ency drivers utilize cones as the g elements. Our high-frequency s are either cone drivers or com- ion drivers, depending on the l you select. Compression drivers ly produce a wider range of fre- cies and have greater sensitivity, e more expensive and require n to disperse their energy. e size of the driver itself does not what the performance will be like. we are trying to accomplish with roducts is optimum performance n a given set of parameters. Size, , and the laws of physics dictate can be done. Certain tradeoffs ing woofer size, efficiency, enclos- ize, and low frequency response acteristics are made in order to ize performance.

Nominal Impedance

All of our high fidelity products are now standardized at 8 ohms impedance. It is important to know the impedance when operating more than one set of speakers at a time, since adding speakers in parallel lowers the impedance. If the impedance drops too low, it can endanger the amplifier. "Zero ohms" is a short circuit; potentially, disaster to an amplifier.

Crossover Frequency

The crossover point(s) for each system is specifically selected to optimize the overall performance of that system. The crossover frequency indicates the point at which the response of two speaker components (such as a woofer and mid range) intersect, or cross over. It is important to know that this is not the point at which a driver stops operating; rather, it is the point at which the driver radiates about 50% of its mean output level, and continues to radiate energy below (or above) this point.



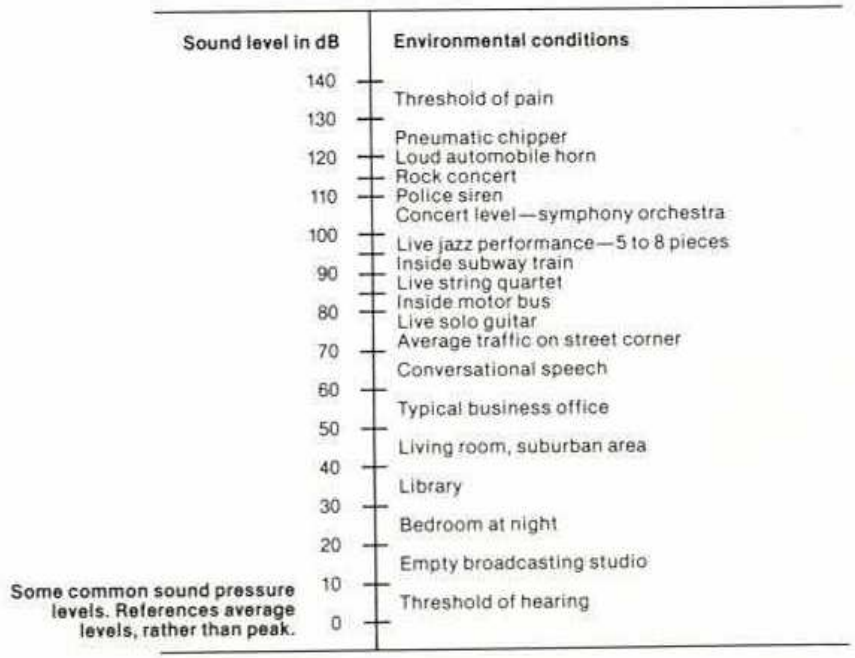
Enclosure Type

In its more than 40 year history, Altec Lansing has developed systems using nearly every major type of enclosure tuning method, and we have many different types in use today. Vented and conventional reflex, horn loaded, sealed enclosures. Why does Altec Lansing not subscribe to the hypothesis that one tuning method is clearly better than any other? Because there is no one universally best method. Altec Lansing selects its tuning method as part of a total package of parameters to deliver the most desirable low-frequency performance from a given product—a study in performance optimization.

Sensitivity

Sensitivity, or efficiency, is one most important, yet most overlo performance parameters. It ind how efficient a unit is, how muc acoustic output it can deliver fo given amount of electrical inpu larger the number, the more se or efficient, the unit is. For exar speaker with a sensitivity rating 100 dB SPL will deliver 10 time acoustic output of a speaker wi rating of 90 dB SPL given the s amount of input power. This is the difference between a 10-wa fier and a 100-watt amplifier!

Why consider a speaker of m sensitivity? Sensitivity is expen either costs money, size, respo the low and high ends of the au band, distortion, or a combinat all of these.



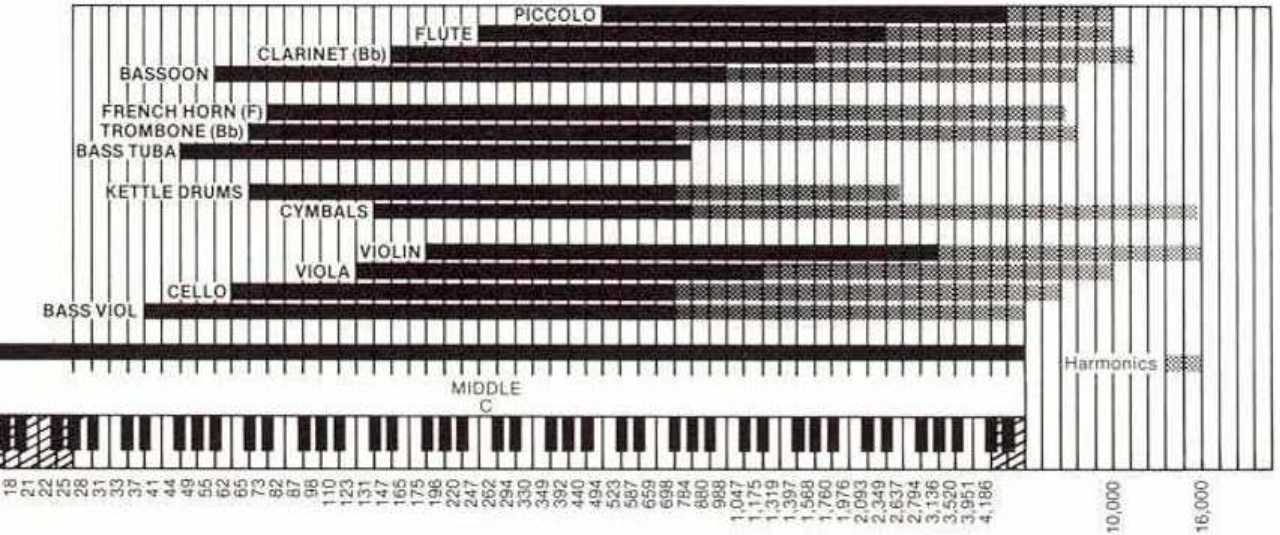
uency Response

ency response tells us the prac-
mits at the extremes of the audio
and is always measured directly
t of the center of a speaker, a
you would never sit when listen-
stereo. And the fact is that
ency response can change dras-
with a very slight movement of
easuring point.

quency response cannot tell you
much bass or treble" a speaker
oduce; it cannot, nor can any
fication or group of specifications,
u how a speaker will sound—only
devised and careful listening test
o that.

our recommendation that you
se the ultimate option—the listen-
st—as the deciding factor for
ing a speaker system. Your Altec
ng dealer will provide the best
ble listening environment and
arison facilities—use them.

FREQUENCY RANGES OF MUSICAL INSTRUMENTS



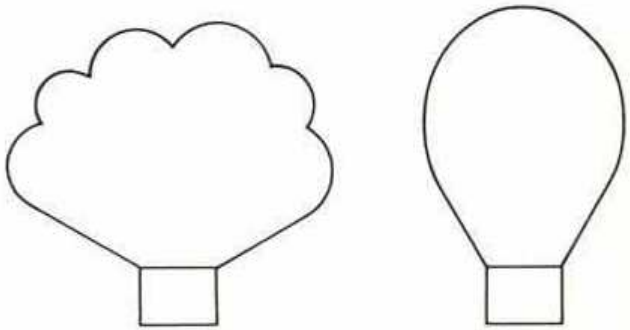
Dispersion

This specification tells us how much and in what pattern a speaker system spreads out its energy. Since, as a general rule, higher frequencies spread their energy less than lower frequencies, we use a high-frequency signal to measure the dispersion of our speakers.

"90° at −6 dB horizontal" means that if we were to look at an arc 90° wide, with the center directly in front of the speaker, the amount of energy at the edges of the arc would be 6 dB less than or about 25% of that at the center.

Is dispersion good or bad? An adequate dispersion pattern is required to convey a good stereo image and to prevent "beaming" (concentrating the sound directly in front of the speakers).

But too broad a dispersion pattern can distort the stereo panorama or cause frequency cancellation by environmental surface reflection, a frequent problem with most omnidirectional speakers.



POOR: WIDE ROUGH DISPERSION

BETTER: CONTROLLED UNIFORM DISPERSION

ng-Term Broad-Band aximum Power

s is the "worst case" rating and is ch more severe than normal use. e system is driven using pink noise* ich has been limited by electronic ering to its frequency response band- th. It is then driven for several hours. er a successful test, the power is reased in 5-watt increments. The t is tested until it fails, and the rating ed is the level of the step used ore failure.

Amplifier Operating Range

Amplifier operating range is the range of minimum to maximum amplifier power that should be used with the unit. This allows for a larger amplifier which can easily pass high-level power peaks in the program material — peaks which are often more than 10 times the average program level.

Although a large amplifier can damage speakers, so can a small one. Keep in mind that an amplifier's rating is at or below a given distortion level; this does not mean the amplifier will cease to generate power at this point. Some amplifiers are capable of power greatly exceeding their "rated" power, but it is highly distorted and with greater damaging potential than an undistorted signal at the same level.

Most any amplifier can damage a speaker. To prevent speaker burnout, use common sense, and discuss it with your Altec Lansing dealer. When the signal becomes distorted, you are overdriving the speaker, or amplifier, or both. And remember, the tone controls increase output just as the volume control does, so avoid large amounts of tone compensation at high levels.

Long-Term Maximum Acoustic Output

This is a measure of how loud a system can play. It takes into consideration both power handling and sensitivity. Measurement is made at the long-term, broadband, maximum power level. The larger the number, the higher the level. The system is capable of more output for short term power peaks, just as it is capable of more power input than specified, but not on an extended time basis.

*A Note on "Pink Noise"

Most of our specifications are measured with pink noise as opposed to white noise because pink noise most closely duplicates the effect of music on speaker components under controlled test conditions. Pink noise is a constant amount of energy per octave, while white noise, sometimes used by other manufacturers, is a constant amount of energy per cycle. Due to the extreme difference in Hertz from octave to octave, white noise measurements can distort the specification's meaning.

ALTEC
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Your Altec Lansing Dealer is:

omestic Offices:
Altec Lansing International
1515 So. Manchester Avenue
Anaheim, California 92803
U.S.A.
Telephone: 714/774-2900
Telex: 65-5415

10500 West Reno Avenue
Oklahoma City, Oklahoma 73126
U.S.A.
Telephone: 405/354-5311
Telex: 74-8510

ternational Offices:
17 Park Place
Stevenage
Hertfordshire
SGIIDU, England
Telephone: 0438-3241
Telex: 825495

Altec Lansing of Canada, Ltd.,
151 Carlingview Dr., No. 5,
Rexdale, Ontario
Canada M9W5E7
Telephone: 416/675-1177
Telex: 06-968634

ALTEC
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FULL 5-YEAR WARRANTY

Altec Lansing has always been a manufacturer of fine audio equipment. And we are one of only a few manufacturers who back up their products with a full five-year warranty.

Altec Lansing warrants all loudspeaker systems to be free from defects in materials and workmanship for a period of five years from the date of purchase. For warranty repair, the defective product should be delivered to an authorized Altec Lansing Servicing Dealer, authorized warranty station, or Altec Lansing factory repair center. In addition, the warranty may be transferred to any subsequent owners during the five-year warranty period.

A thorough Warranty Protection statement is enclosed with each Altec Lansing unit purchased.

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