Musical Sound Equipment

ALTEC

e sound of experience



The Sound System... A Performer's Life's Blood

Music is art. Creativity. Personality. But to become art, it must be shared. And for an artist to share his music with others requires exacting, accurate, reliable sound equipment. Equipment designed to be part of the musical experience. Tools in the artist's hands.

At Altec, we produce many kinds of equipment for the professional musician. All of it with Altec's inherently high standards of quality in design and manufacture.

When it comes to guitar speakers, there are no finer available. Pure truth. Ask the pros. And backed with a full 5-year warranty.

Altec control consoles and power amplifiers have the tightest specifications of any in the industry. Their modular construction not only ensures hassle-free service, but uniform quality from unit to unit. No hand wiring or cold solder joints—the end effect—super reliability.

We've learned that different groups have different requirements in speaker systems, so we have created a variety of systems to satisfy these individual needs. All the way from column speakers to the famous "Voice of the Theatre" speaker systems.

Even Altec accessories—stands, covers, cables, etc.—are designed for dependability, to withstand years of continuous hard use.

As a performer, you're aware of the multitude of problems that exist in setting up and operating a sound system. That's why reliability, flexibility and performance are so

all-important to you...and to us. We design our products to make life a little easier for you.

Unlike most companies making sound equipment, Altec has developed a full, complete line of products that make it possible for you to expand your sound system as your needs increase. This type of approach is one reason so many professional performers use Altec sound systems throughout their careers. And we never stop developing and improving our

products for you...better sound is our business.

No matter what you're into musically—rock, blues, country, jazz, or gospel, Altec is there—with an integrity that has made us the largest exclusive manufacturer of sound equipment in the world.

This catalog highlights many new, exciting Altec products. Browse through it—acquaint yourself with Altec's line of professional sound equipment—and share in Altec's role in keeping life's musical blood flowing.



Altec Musical Instrument Loudspeakers

Altec Sound Products Division is one of the world's largest manufacturers of top-quality industrial/professional sound systems, commercial sound equipment and musical sound products. The name "Altec", on sound equipment, means unexcelled quality, craftsmanship and performance.

Whatever your speaker requirements are, you will most assuredly find that Altec loudspeakers represent the ultimate in efficiency, tonal response and reliability.

Altec's new "H Series II" speakers, displayed on this page, feature special heat-dissipating aluminum coil supports and extremely rugged copper voice coils that permit extensive use with minimal chance of burnout. We are confident that the "H Series II" speakers will provide superior performance in such applications as club, church, theatre and auditorium sound systems. We offer our assurance of Altec reliability now and in the years to come.

Speaker Specifications

Model	417-8H II	418-8H II	421-8H II	425-8H II
Size:	12"	15"	15"	10"
Power Rating:	100 watts	150 watts	150 watts	75 watts
Pressure Sensitivity 1/watt at 3 ft.	100 dB SPL	103 dB SPL	102 dB SPL	98 dB SPL
Frequency Response:	60-8000 Hz	45-8000 Hz	35-3500 Hz	60-10,000 Hz
Application:	Full range	Full Range	Bass	Full range
Impedance:	8 ohms	8 ohms	8 ohms	8 ohms
Magnet Structure Weight:	11½ lbs.	11½ lbs.	17½ lbs.	11½ lbs.
Weight:	17 lbs.	20 lbs.	22 lbs.	16 lbs.



The Altec 1219B Speaker System and 1224A Biamplifier

The Altec 1219B — a new standard of performance in clean, high-level sound reinforcement. The Altec 1224A — a rugged new biamplifier designed to take road abuse. And it's dependable — for continuous hassle-free performance.

The 1219B features our time-proven Voice of the Theatre type components — a 418 type high-power bass driver in a bass reflex enclosure, and an 811B horn with an

808-8B driver. The Voice of the Theatre components and systems have reached a level of fame second only to the performers who use them, and the 1219B continues this tradition. And the tough, epoxy-finished cabinet has a removable cover for portability and protection.

We've tied the components together with our new 1224A biamplifier. Super stable and rugged. Low distortion. Reliability. The result is a high-level powered speaker system which is super clean, portable, and dependable. The biamp concept results in an efficiency of power transfer not possible in conventional systems. And the 1224A is available separately for use with other systems you may wish to convert to the biamp advantage.

New from Altec. The 1219B powered speaker system, and the 1224A biamplifier.

Specifications

Model	Power (Bass Amp.	Output Treble Amp.	Input Sensitivity	Power Requirements	Total Harmonic Distortion	Crossover Frequency	Frequency Response	Acoustic Output at Maximum Gain Settings	Input Impedance	Enclosure	Dimensions	Weight	Input Connectors
1219B	60 watts	30 watts	0.5V rms	160 watts at full output	_	800 Hz with —12 dB/ octave rolloff	35 Hz to 20,000 Hz	120 dB SPL measured at 4' on axis with 0.5V rms input of pink noise from 100 Hz to 10 kHz	15,000 ohms	Bass reflex type. 34" plywood construction with resilient epoxy finish. Recessed handles and removable front cover.	30¼"H x 28"W x 19¾"D	123 lbs.	1 Cannon XL 3-pin female wired in parallel to 1 Cannon XL 3-pin male
1224A	100 watts continuous (4 ohms) 60 watts continuous (8 ohms)	50 watts continuous (4 ohms) 30 watts continuous (8 ohms)	0.5V rms direct (for rated output, gain controls at full boost)	120V ac, 50/60 Hz, 160 watts at full output	Less than 0.15% at rated output into 8 ohms	500, 800 or 15,000 Hz with 12 dB/ octave rolloff	20 Hz to 20,000 Hz, ±1 dB (composite output)	_	15,000 ohms direct 15,000 ohms with 15335A transformer 600 ohms with 15095A transformer	_	6½"H x 9½ "W x 9"D	16 lbs.	1 Cannon XL 3-pin female wired in parallel to 1 Cannon XL 3-pin male



Altec Control Consoles

Not so long ago, a mixer was just a few volume controls, maybe a bass and treble control and a couple of screw terminals on the back to hook up your speakers. But music changed, and so did we. Our new 1214A control consoles are designed and built to meet the most demanding requirements of today's professional entertainers.

Since flexibility is so essential to the design of a control console, we've included each of the six microphone channels with separate volume, bass, treble, and reverb controls. And in order to tune out the problem frequencies that cause feedback, we also have built in acoustic equalization switches.

When you've been on the road awhile, reliability is possibly the most important feature of a piece of electronic gear. That's why we build our consoles on a modular basis. If a problem should develop, just drop in a new board - and leave your test equipment at home.

Performance is one thing we're not afraid to talk about. Look at our specifications. Altec control consoles are built a little bit better.

The Altec 1214A

The new low impedance 1214A contains many outstanding features. First and most important are the new low impedance (150 ohms) transformer balanced Cannon type connectors which are mounted on the rear panel. They give a good, tight fit, and allow the use of low impedance microphones that eliminate much of the annoying hums, buzzes and high frequency losses that normally accompany high impedance microphones. The locking top cover of the 1214A protects the top panel of the unit during travel, and also keeps the controls away from strangers' hands when left in a lounge or club overnight.

Specifications for 1214A

7 high impedance "mic" level 6 low impedance "mic" level

Frequency Response: ±2 dB from 20 Hz to 20,000 Hz

Power Output:

100 watts continuous at less than 2% total harmonic distortion

Noise Level:
—120 dBm equivalent input noise
—80 dB signal to noise from full output

Speaker Load Impedance: 4 ohms minimum

Dimensions: 241/2"W x 91/4"H x 15"D

Weight:

52 pounds

Input Power: 120 volts, 50-60 Hz



1220AC Audio Control Console

The 1220AC was designed with one idea in mind. To construct the perfect portable control console for the professional performer and his sound reinforcement system. We think we came pretty close.

Before the 1220AC, travelling performers had been trying to convert small recording studio consoles for road use. But unfortunately, the functions, features, construction and reliability of these type consoles proved that they were better left in the studio.

The 1220AC is a combination of a recording console's performance, Altec reliability, and its own very unique features. We're extra proud of the construction techniques used in the console. Modular PC boards are used for input transformers, dual preamp channels, master amp channel, and even the output stages and transformers. So there's no long list of expensive "extras" you have to buy to make it work. They're all built in.

The 1220AC comes standard with a vinyl covered plywood case which also houses the detachable steel legs. The console itself may be removed from the bottom half of the case and used as a permanent table top console.

If lately you've been working for your sound system instead of it working for you it's time you looked at the Altec 1220AC.

Individual Preamp Channel

Each channel 1-10 has individual slide volume, VU meter, rotary type bass, treble, reverb level, monitor level, monitor select channel A and B, Cannon type transformer balanced 150 ohm mic level input, and high level preamp output.

Master Controls

The master controls include slide master volume, master VU meter, rotary type master bass and treble, channel 1-10 standby switch, master monitor A and B levels, monitors stand-by switch, channel 11 volume, master reverb level, internal/external reverb switch. electronic crossover frequency select, electronic crossover balance control, limiter in/out switch, gain reduction control, gain reduction meter, and fast/slow limiter release.

Rear Panel Inputs and Outputs

The main output is a Cannon type, switchable balanced 600 ohms line level or 150 ohms mic level. Electronic crossover outputs, high frequency, low frequency, (500 or 800 Hz) full range, monitor A and B outputs are all 600 ohms line level balanced via stereo phone jacks. Inputs and outputs are provided for external reverb, echo or equalizer units. The aux out may be used for cascading additional

1220AC Specifications

Gain: 86 dB channels 1-10 (150 ohm source)

Power Output:

-21 dBm max. at less than 0.5% distortion

Frequency Response: ±1 dB 30 Hz to 20kHz

Total Harmonic Distortion: less than 0.5% (30Hz to 20kHz)

Noise Level:

Noise Lever:
—127.5 dBm equivalent input noise, signal to noise greater than 80 dB (full output master at —14)

Tone Controls: ±16 dB at 100 Hz and 10kHz

Limiter Release:

Limiter Distortion; typically less than 1% for 10 dB of compression

Power Requirements: 120/240V AC 50/60 Hz 50 watts or 24/28 V Battery 2A Max. (Heyco 2 terminal)

Dimensions: 38"W x 12"H x 26"D

Weight:



Voice of the Theatre Speaker Systems

About 40 years ago, someone discovered that by using both a metal high frequency horn and low frequency cone type woofer, the highest quality of frequency response for the human voice and full range music could be achieved. This system was called "The Voice of the Theatre."

Forty years later, the name is still the same, but a lot of improvements have been made. Our low frequency woofers are now capable of handling 150 watts continuous. And all the systems pictured below utilize an 800 Hz crossover. This was done to obtain more warm, mellow sound from the low frequency speaker, and to increase the projection and power handling of the high frequency unit.

The high frequency drivers use the exclusive Altec Symbiotik diaphragm for greater power-handling capability. And because these drivers are ultra efficient, very little wattage is needed from the power amplifiers, so distortion is significantly reduced.

We make these speakers to be used, and used hard. But maybe most important, they

can deliver high output, loud but undistorted. And with the projection that allows every frequency to come through, especially the critical highs.

Each of the Voice of the Theatre systems now uses an "H" series loudspeaker, a

superb speaker with outstanding performance capability. We urge you to listen to these systems. Only then will you understand Altec's justifiable pride in "The Voice of the Theatre."

Specifications

Model	Power Rating	Impedance	Dimensions	Weight	Speaker Components	Enclosure Type	Cabinet Style
1204B	50 watts (100 watts*)	8 ohms	45" x 28" x 28"	120 lbs.	421 type LF 808 HF driver N809-8A network	Multi-port bass reflex	Vinyl covered casters, tow bar, bumpers
1208B	50 watts (100 watts*)	8 ohms	42" x 30" x 24" (horn inside enclosure)	160 lbs.	421 LF speaker 511B horn 808 HF driver N809-8A network	Horn loaded bass reflex	Utility gray plywood
1218A	50 watts (100 watts*)	8 ohms	30" x 28" x 20"	110 lbs.	418 type LF 807 HF driver 811B horn N809-8A network	Bass reflex	Resilient epoxy, snap on cover, recessed handles

*These systems utilize the N809-8A crossover which has a variable attenuator for the high frequency driver. The "O" position represents full power to the HF driver, which has a 50 watt power handling capacity. The power handling of the entire speaker system may be increased to 100 watts by setting the HF attenuator in the "5" position.



1221A Stage Monitor

Monitor speakers are a singer's best friend.

If you're a singer, you've undoubtedly noticed that most of the time, trying to hear yourself on stage becomes the world's biggest hassle—especially when the instruments behind you are really loud, or the sound system speakers are far away. Good microphones and a good sound system will clear up part of your problems, but they are still rarely enough to produce sufficient level on stage to make you feel comfortable and perform your best.

Designing the perfect monitor speaker was no easy task. There's a lot of requirements besides just being loud. First of all, it has to sound good. Not honky or boomy — but sweet, crisp, and full. So that you sound like you, and not somebody else. To accomplish this, we chose a two way system, utilizing a 12-inch 417-8H type woofer in a ported reflex cabinet for maximum bass, and very mids. For the high end, we found the 32B horn and 808 driver provided an excellent combination of punch and sweetness. High end articulation is absolutely essential to add realism to your voice.

The next most important aspect of a monitor speaker is its dispersion. Too many monitor

speakers, especially those with cone speakers only, beam the high frequencies to a very narrow angle, which tend to make them almost useless unless you're standing directly in front of them. The 1221A uses the 32B high frequency horn which can guarantee you 100° of good horizontal coverage even at 16 kHz. That gives you the freedom to move all over the stage and still hear the critical highs.

Last, and probably most important, a good monitor speaker must be loud. That can be done in a couple of ways. The extremely smooth extended response of the 1221A Monitor matches the rejection characteristics

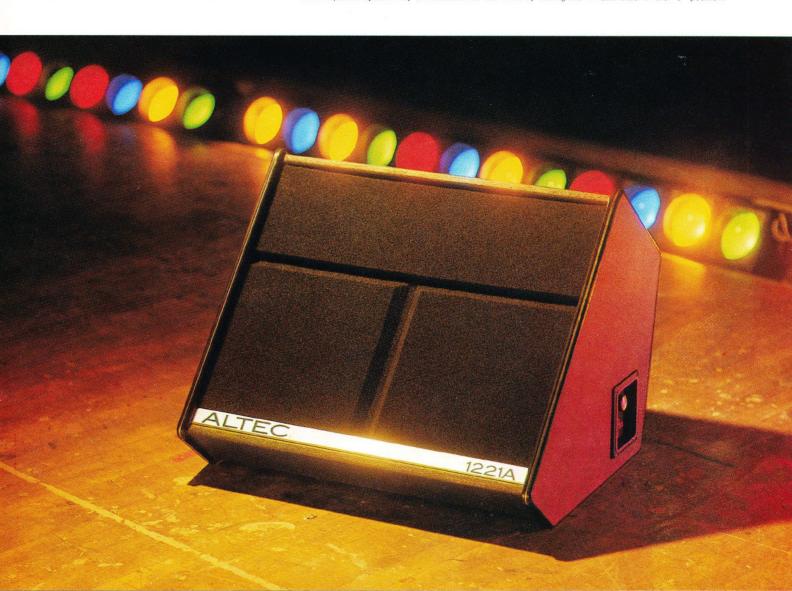
of most high quality cardioid microphones to provide the utmost in feedback suppression. And by making a monitor speaker highly efficient, you can hear the peaks in the music much louder. The 417 woofer and 808 driver have more than paid their dues when it comes to the efficiency department. With maximum power input (100 watts), the 122IA can produce over 120 dB at 4 ft.

The slant back speaker panel of the 1221A Monitor provides just the right angle from the floor to the singer's ears. You get all the advantages of a larger speaker cabinet, but still maintain a low profile, so the audience sees more of you.

1221A Stage Monitor Speaker System Specifications

Power Rating	Impedance	Dimensions	Weight	Speaker Components	Enclosure Type	Cabinet Style
50 watts (100 watts)*	8 ohms	28" W x 24" D x 22" H	64 lbs.	417-8h type LF 32B HF horn 808 HF driver special design crossover network	multi port bass reflex	vinyl covered plywood with edge bumpers and snap-off foam grille

^{*}The 1221A utilizes a crossover which has a variable attenuator for the high frequency driver. The "O" position represents full power to the HF driver, which has a 50 watt power handling capacity. The power handling of the entire speaker system may be increased to 100 watts by setting the HF attenuator in the "5" position.



1215A Folded Horn System and 1225A Portable Multicell

Think back to the last time you were at a large concert. If you took a good look at the sound system, chances were, the high frequencies were handled by a multicell and the low frequencies were reproduced through a horn type enclosure. The reason is this. If you're going to play to large audiences, you need a loud, clean speaker system. That's why we built the 1215A and the 1225A.

1215A Low Frequency Folded Horn

Even the most sensitive of low frequency speakers need a highly efficient enclosure to match the levels produced by high frequency horns and drivers. And the most efficient, yet compact bass enclosure ever designed is the folded horn.

We chose the 421-8H for the 1215A so that it can play at incredible levels without any fear of burn out. The cabinet itself is an

Specifications

Model	Power Rating	Impedance	Dimensions	Weight	Speaker Components	Cabinet Style
1215A Folded Horn	150 watts	8 ohms	48"H x 28"W x 24"D	185 lbs.	421-8H Bass Speaker	Resilient epoxy casters, tow bar
1225A Multicell System	100 watts	8 ohms	28"W x 18"H x 29"D	125 lbs.	805 multicell 292-8A high frequency compression driver N809-8A network	Resilient epoxy, snap on cover, recessed handles

extended folded horn finished with resilient epoxy for super durability. If you're ready to create a little thunder, you're ready for the 1215A.

1225A Portable Multicell System

The 1225A is more than just a multicell horn and a 100 watt driver. By themselves, multicells are rather delicate, fragile, instruments. So we designed an elaborate protective case which suspends the horn and driver and shelters it from harsh travel treatment. The latching front cover gives maximum protection to the cells after the show is over. There are two separate crossover networks included. The standard N809-8A passive network, and a special input protective network for biamping. If you've ever wondered why so many concert groups use multicells, the 1225A should answer all your questions.

9477B Power Amplifier

You may not have realized it yet, but one of the best ways to increase the loudness of your sound system and at the same time lower the distortion, is with high quality power

The new Altec 9477B does just that. And it's the ideal slave amp or biamp (using two) for the Altec 1215A Folded Horn and 1225A Multicell System.

If you're ready to upgrade or expand your present sound system, don't forget the power amps. Take a listen to the 9477B. We think you'll be amazed.

The optional 1177A case provides portability and protection for any rack mounting type amplifiers, such as the 9477B.

9477B Specifications

Power at Clip Point: Typically 130 watts continuous into 8 ohms

Frequency Response: ±0.5 dB 20Hz to 20KHz

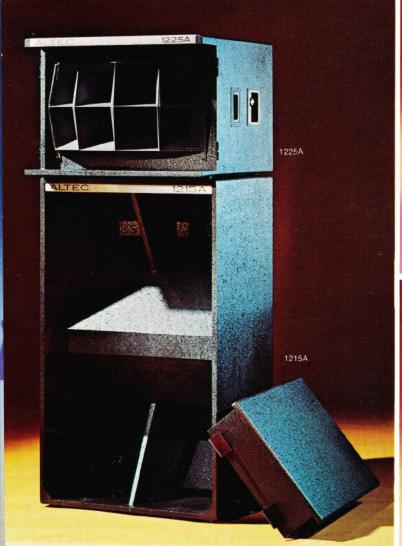
Total Harmonic Distortion: Less than 0.5% at 100 watts 30Hz to 20KHz

Input Sensitivity: 0.8V RMS for rated output (0 dBm input)

Load Impedances: 4, 8, or 16 ohms selectable

Dimensions: 7"H x 19"W x 8½"D (17.78cmH x 48.26cmW x 21.58cmD)

Weight: 34 pounds (15.45 Kg)







Voice of the Theatre Components

In nearly every phase of the music business, certain products have become accepted by professional performers as the standards or "classics" by which all others are compared. When it comes to speaker systems, the Altec "Voice of the Theatre" series has held this reputation for more than 40 years. The proof is in its performance.

828B Low Frequency Enclosure

When this cabinet was originally designed, it had to meet the following requirements: Efficiency, projection, and full bass response. In the past couple of decades, these essentials haven't changed in regards to live performance. So neither has our basic design. The front loading horn and precisely tuned bass reflex port increases the sensitivity of a woofer nearly 4 dB across its entire frequency range. To make that increase with a power amplifier, you would have to more than double you wattage output. But just to show that some changes are good, we've now added vertical bars to the back panel for maximum protection of the passive network or biamplifier.

High-Frequency Sectoral Horns

Sectoral horns have long been the favorite

device for high-level music reproduction, due to their excellent dispersion characteristics and rugged construction. The Altec 511B (500Hz cutoff) and 811B (800Hz cutoff) high-frequency horns are made of lightweight cast aluminum and feature a front-mounting flange for easy installation into portable cases. Due to the sectoral expansion of these horns, high frequencies are distributed evenly throughout the horizontal plane with very little beaming. Distortion is virtually nonexistent. In both the 511B and 811B, an 800Hz crossover is recommended for extended directionality and maximum high-frequency driver protection during the high-level music applications. For "long throw" applications, the 511B is preferred, using two or more stacked in column-type arrays.

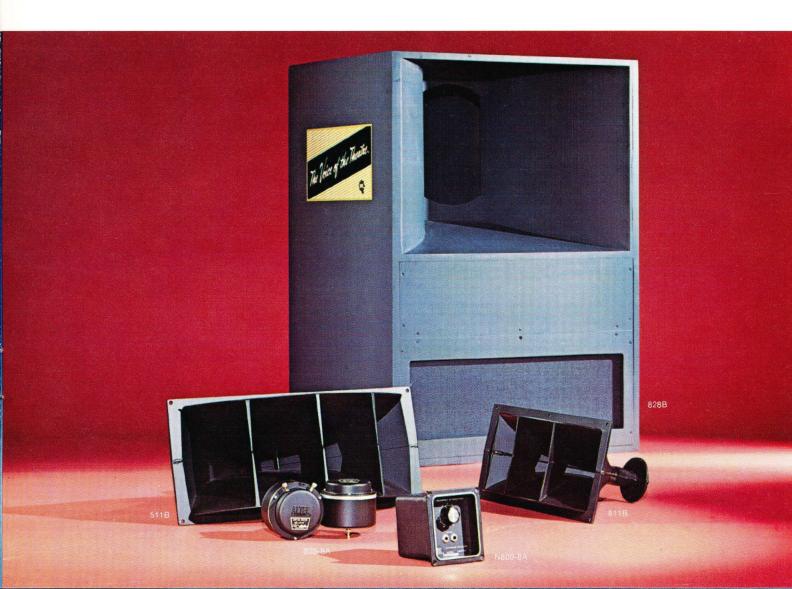
High-Frequency Drivers

High sound pressure levels require not only sufficient bass level, but undistorted, extended high-frequency response. The Altec 808-8A high-frequency drivers are capable of delivering incredibly smooth response from 500 to 20,000 Hz. The Symbiotic diaphragms provide the utmost in sensitivity, 50 watts continuous power handling and are completely field-replaceable.

For extremely high-level work, the 808-8A is recommended may be used with either the Altec 511B or 811B sectoral horns.

N809-8A Crossover Network

In order to protect high-frequency drivers and achieve proper acoustical balance, a high-quality crossover network should be incorporated in every two-way speaker system. The Altec N809-8A provides a 12 dB per octave roll off above and below the 800 Hz crossover frequency. The use of an 800 Hz network has proven effective in protecting the HF drivers from potentially harmful low-frequency signals of the 500 Hz region. This area is more pronounced with high-level or hard rock program material. The N809-8A features two paralleled ½ " phone jack inputs and a rotary attenuator that adjusts the output level of the high-frequency unit.



Altec Column Speaker Systems

Small rooms and nightclubs mean small stages. And small stages mean feedback problems due to tight microphone placement. A column speaker won't completely eliminate feedback, but maximum output can be effected even when the microphones are located extremely close to the speakers.

1217A Two Way Column

In small dead rooms, the dispersion pattern of a column speaker can't be beat. For maximum articulation and clarity, the best answer is a high frequency horn. Our new 1217A is the best of both ideas. The six 403A's, H600 horn and T50 high frequency driver combine to deliver an extended frequency response unmatched by most two-way systems costing much more. So if you're ready to upgrade your present sound

system, add a little brightness with our new 1217A.

1211A Monitor Column

Like the 1217A, our new 1211A combines the full, warm sound of a column speaker and the crisp articulation of a high frequency horn. The 1211A was designed for use as both an onstage monitor speaker and an extremely compact reinforcement speaker. Because of its ultra flat response, it becomes an excellent monitor speaker when aimed directly at the vocalist's microphone. The full range attenuator allows you to control the individual level of each 1211A when used on a single amplifier.
The optional 1114A Rotating Speaker Stand can be used to tilt back the 1211A in a monitor application, or permanently install it to a wall or ceiling.

Specifications

Model 1211A

Power Rating: 50 watts Impedance: 8 ohms

Dimensions: 35" x 11" x 14" Weight: 45 lbs.

Speaker Components:

Three 8 inch Altec 403A speakers, HF206 horn, T60 driver, full system attenuator

Model 1217A

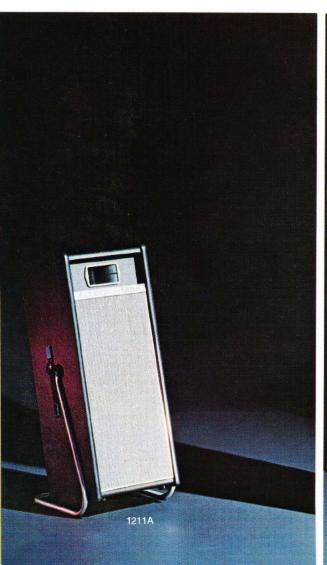
Power Rating: Impedance:

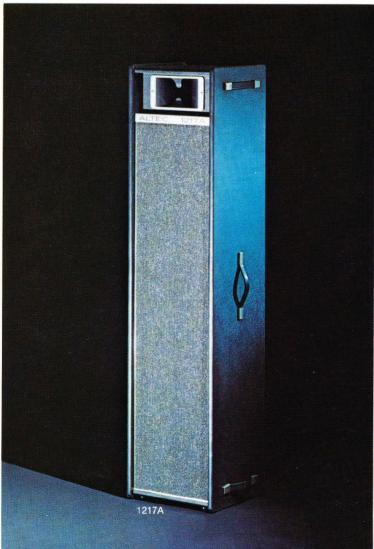
75 watts 12 ohms 62" x 14" x 14"

Dimensions: Weight: 85 lbs.

Speaker Components:

Six 8 inch Altec 403A speakers, H600 horn, T50 driver, special design 3000 Hz network







Altec Accessories

39A Microphone Transformer

The 39A matches any low impedance microphone to any high impedance mixer. The transformer/adaptor fits a standard ¼" phone plug for the amplifier connection.

183A Cable

The 183A is similar to the 39A, but consists of 25 feet of 2-conductor shielded cable between the Cannon connector and transformer/phone plug housing.

1100A Control Console Stand

The 1100A places an Altec 1214A in perfect position for mixing, and also protects front panel input cables.

Heavy-duty vinyl covers are available for most all Altec speaker systems. They're waterproof, scuff resistant, and keep out harmful dirt and dust in all kinds of weather.

University Microphones and Accessories

University Sound Microphone Stands and Accessories represent a complete line of products for heavy duty long lasting professional use.

Model	Height	Base	Stem Assembly	Use
UMS-100	35 to 63"	10" Diam. black wrinkle	Bright Chrome	Vocals General Purpose
UMS-101	34 to 62"	10" Diam. bright chrome	Bright Chrome	Vocals General Purpose
UMS-102	34 to 62"	10" Diam. bright chorme	Bright Chrome	Vocals General Purpose
UMS-103	36 to 63"	12" Diam. black wrinkle	Bright Chrome	Vocals Baby Boom
UDS-100	4" only	6" Diam. black wrinkle	Bright Chrome	Bass Drum Guitar amps
UDS-101	8 to 13"	6" Diam. black wrinkle	Bright Chrome	Guitar Amps Organ Speakers

Model UGN. Flexible "goose necks" may be used with any mic stand for hard to reach applications. Bright Chrome finish.

 Model UGN-106
 6 inches

 Model UGN-113
 13 inches

 Model UGN-119
 19 inches

Model UBB-100. Boom attachment, features a solid machined brass swivel mount. Fits securely on any standard floor stand. Bright Chrome finish.

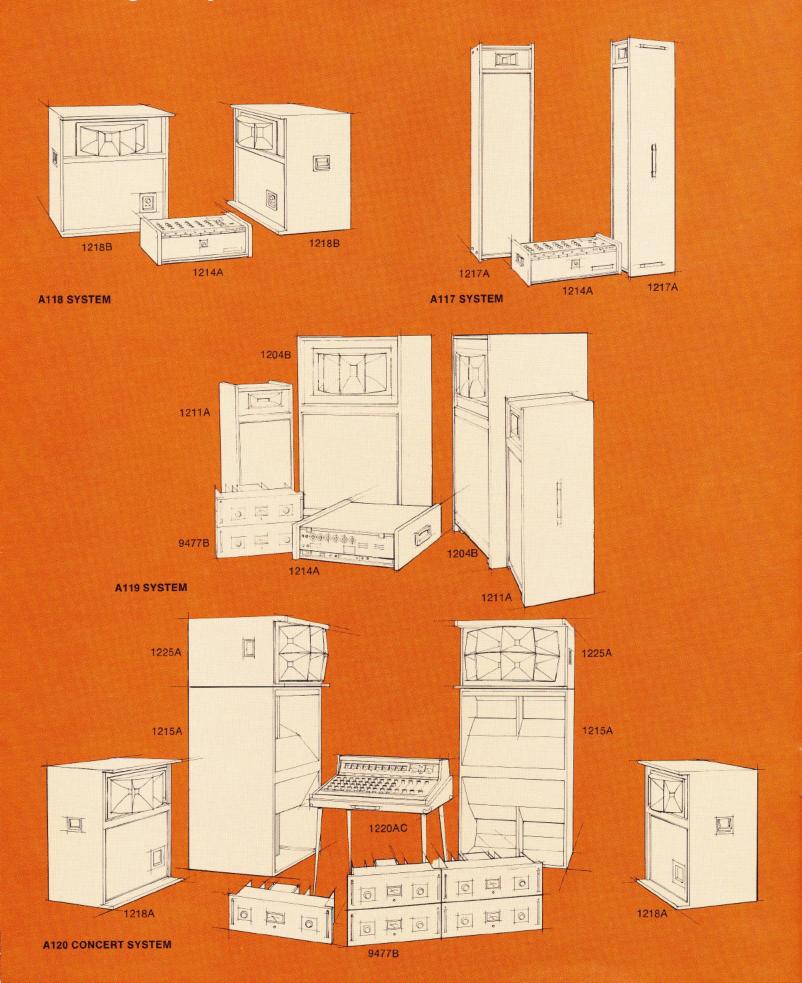
Model UBS-100. Boom swivel mount used on UBB-100. Available as a replacement, or can be used to mount several mics to one floor stand.

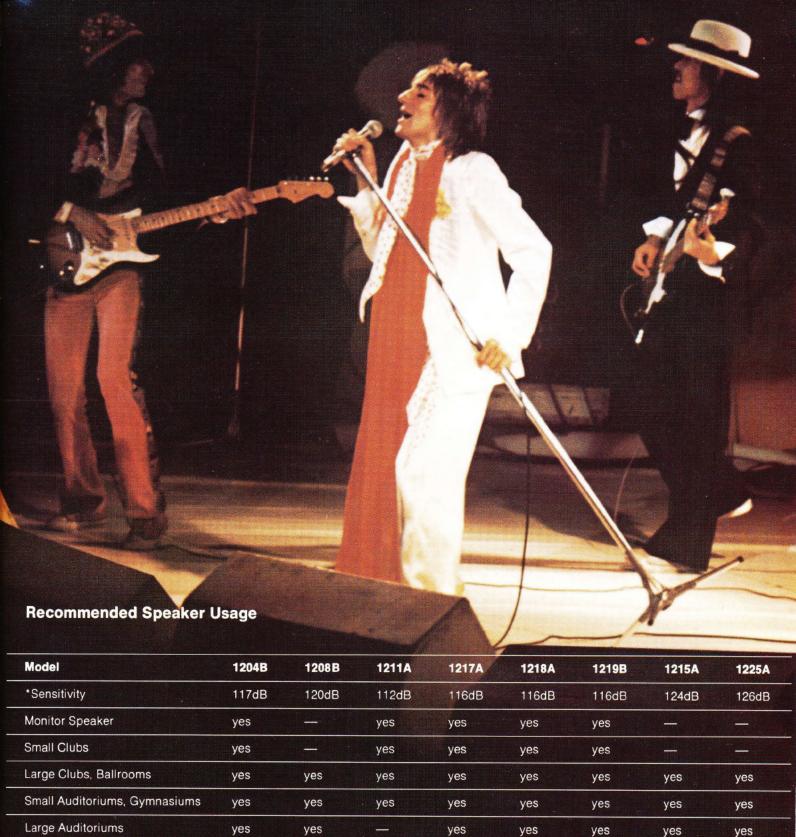






Altec Integrated Systems





yes

yes

2

2

4

yes

2

Field Houses, Coliseums

Maximum number of speakers

that can be used with a 1214A

Outdoor Concerts

Because Altec products are subject to continuous improvement we reserve the right to change trim, design or specifications without notice and without incurring any obligation.

yes

up to 20**

yes

yes

2

yes

yes

2

yes

2

^{*}Sensitivity measurement made at 4 ft. on axis with 50 watts continuous pink noise 100Hz-10kHz

^{**}When these speakers are used with a 1214A, combinations of powered and unpowered speakers may be formed while using one mixer-preamp. With powered speakers up to 20 may be used along with the maximum number of unpowered speakers which is shown in the chart above.

