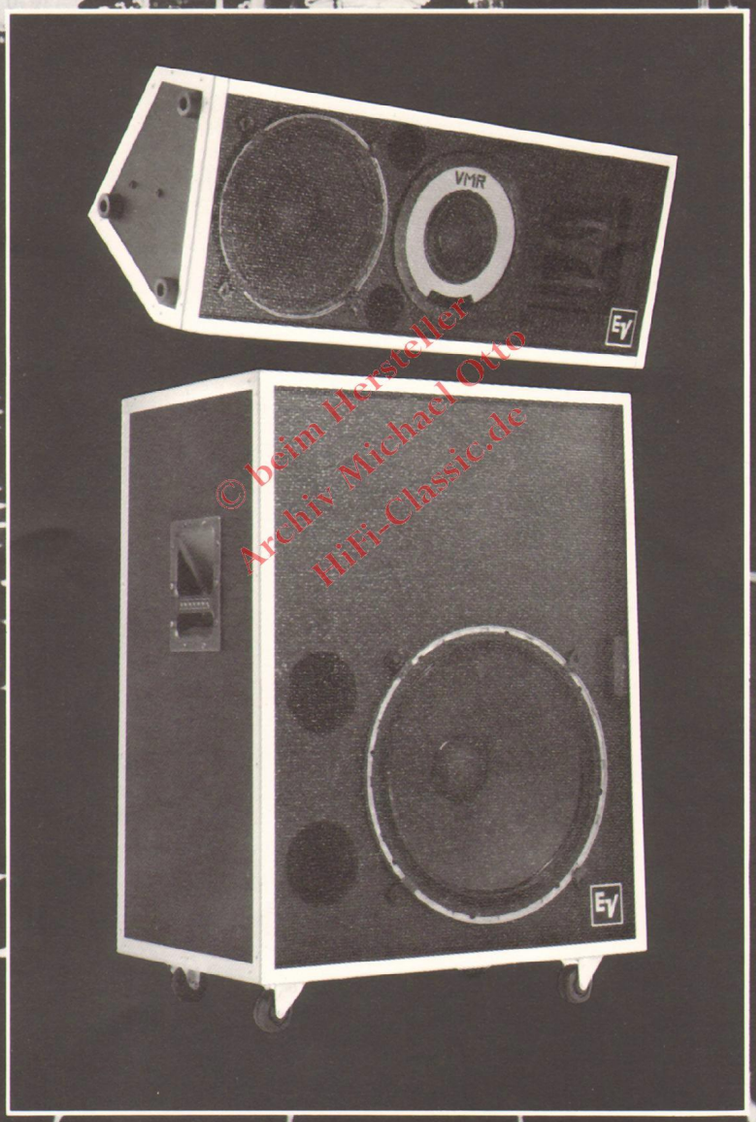
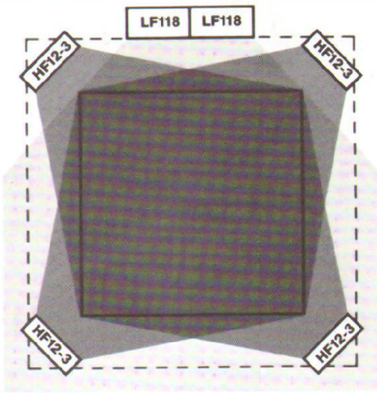
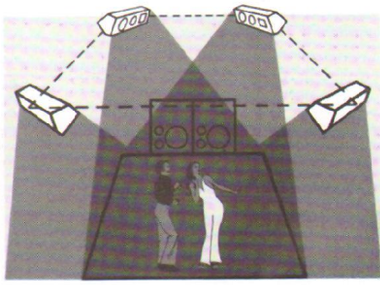
Electro-Voice®

Professional Sound Reinforcement Products for the Dance Environment



Professional Sound Reinforcement Products for the Dance Environment





HF12-3's overhead along with floor mounted LF118's combine to produce the high quality sound previously available only to those who could afford custom installations.

The two basic objectives of a high-performance discotheque-type sound system are to get the lows down on the floor where you can feel them and the highs up where you can hear them. In addition, the system must be capable of extremely high acoustic output, with low distortion across a wide frequency range.

Until now, sound of this quality on the dance floor has usually been the exclusive province of large clubs who could retain the services of an expert sound design and installation team. Others have had to make do with high-fidelity products, mix-and-match commercial sound components, or packaged "disco" products from firms whose basic involvement in speaker design is minimal at best. The result is often highly colored sound and low system reliability.

To change all this, Electro-Voice has developed two speaker systems exclusively for the dance environment. We've drawn on our many years' experience in speaker design and manufacture as well as on our continuing involvement with the acoustical engineers and sound contractors involved in custom installations. The speakers and associated crossover add up to the hottest, most accurate, reliable, and convenient packaged system available today.

HF12-3 High-Frequency Module

The unique trapezoidal shape and short vertical dimension make the HF12-3 simple to install – even where low ceilings would hinder installation of other high-frequency arrays. HF12-3's are usually installed in a stereo pair or in clusters of four. E-V's exclusive VMR™ vented midrange produces an uncolored sound quality not usually found in high output speakers. The wide 120° dispersion, uniform over the complete frequency range, ensures that the entire dance floor is treated to high-quality sound. E-V's exclusive High Frequency Auto Limiting circuit positively prevents tweeter burnout.

LF118 Sub-Woofer

The LF118 low-frequency system is intended to be floor-mounted where it will produce visceral, undistorted bass down to 40 Hz (3 dB down). The EVM18B 18-inch driver provides high maximum output (121 dB at 4 feet with 200 watts). The optimally vented enclosure not only reduces cone excursion for low distortion but also reduces the possibility of cone "bottoming." Most installations will match one LF118 to a stereo pair of HF12-3 high-frequency modules. The LF118 may be "stepped down" with the XEQ-1 crossover/equalizer for extended bass to 28 Hz, useful when subharmonic synthesizers are employed. In the step-down mode, two LF118's should be matched to an HF12-3 pair.

XEQ-1 Electronic Crossover/Equalizer

The XEQ-1 mates the low- and high-frequency systems together at 125 Hz. An integral high-pass filter prevents potentially damaging subsonic information generated by record surface irregularities and sub-pass-band program material from reaching the woofer. In addition, the built-in switchable Thiele equalizer extends the response of the LF118 to 28 Hz if desired. Crossover frequencies are determined by plug-in modules. Order the 125-B3 module for 125 Hz. One XEQ-1 is required for each stereo channel.

Electro-Voice®
a gulton company
600 Cecil Street, Buchanan, Michigan 49107

Specifications[1]

	Frequency Response	Long-Term Average Power Handling Capacity	Sound Pressure Level: 1 Watt at 10 Feet	Sound Pressure Level: Full Power at 4 Feet	Horizontal Dispersion Angle	Crossover Frequencies	Recommended Crossover Frequencies: As Sub-Woofer, with HF12-3	Recommended Crossover Frequencies: As Woofer	Transducer Complement	Tweeter Protection	Nominal Impedance	Input Connections	Enclosure Construction	Dimensions	Net Weight
HF12-3	90-16,000 Hz	100 watts	88 dB	116 dB	125° ± 30° in the 500-16,000 Hz octave bands (long axis horizontal)	1000 and 4000 Hz	—	—	EVM12L 12-inch woofer; VMR™ 6½" vented midrange; ST350A radial horn tweeter	High Frequency Auto Limiting circuit	8 ohms	Two parallel ¼" phone jacks	¾" black-vinyl-clad plywood with aluminum trim	15" H 38¼" W 13¼" D	73 lb
LF118	40-6000 Hz (28 Hz in "step-down" mode with equalization)	200 watts	90 dB	121 dB	180° in the 125 Hz octave band; 97° in the 500 Hz ⅓-octave band (long axis vertical)	—	125 Hz	500 Hz or lower	EVM18B 18-inch woofer	—	8 ohms	Two parallel ¼" phone jacks	¾" black-vinyl-clad plywood with aluminum trim	35½" H 28" W 19⅜" D	96 lb

[1] See engineering data sheets for detailed specifications and test conditions.
Specifications subject to change without notice.

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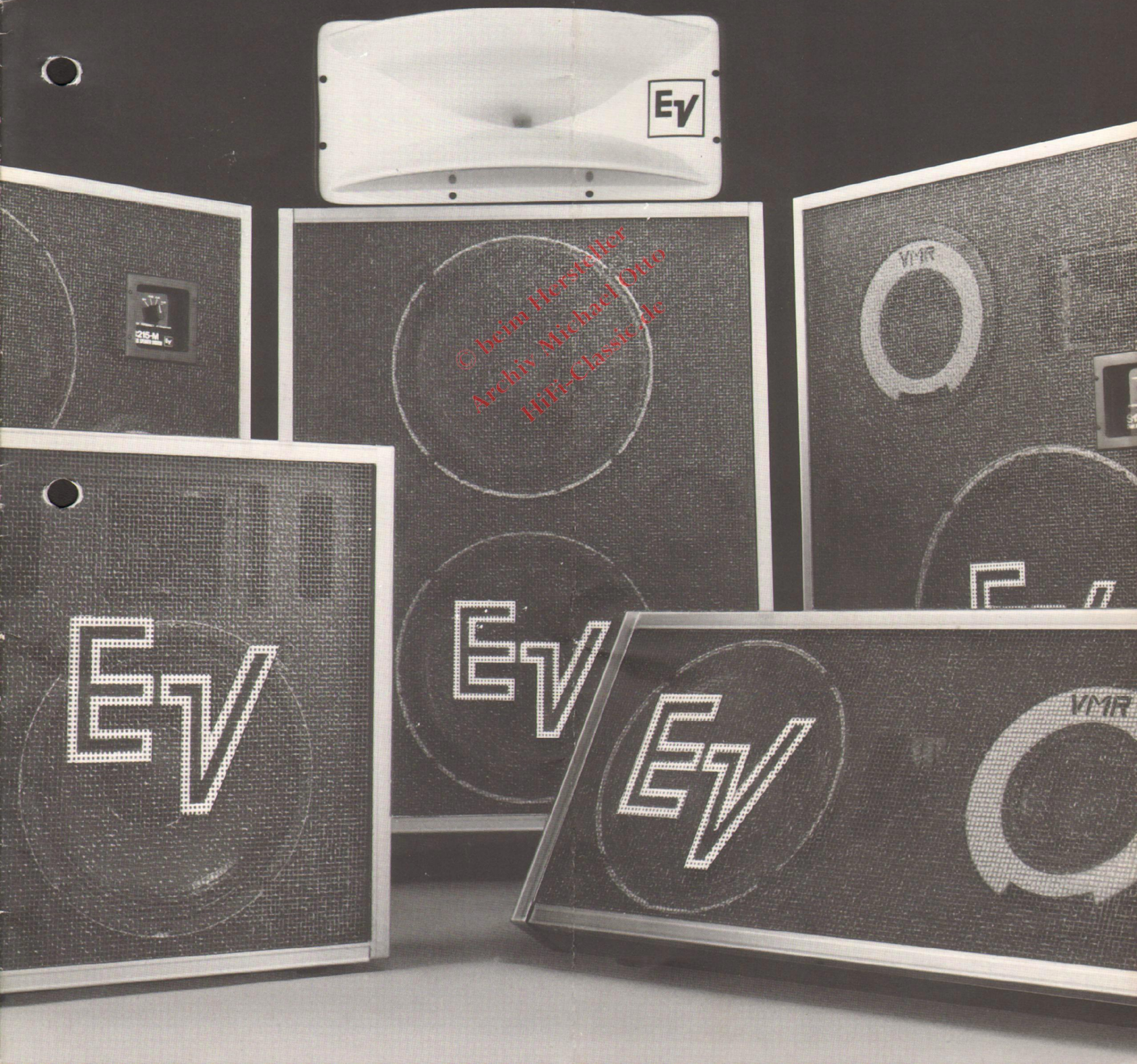
Electro-Voice®

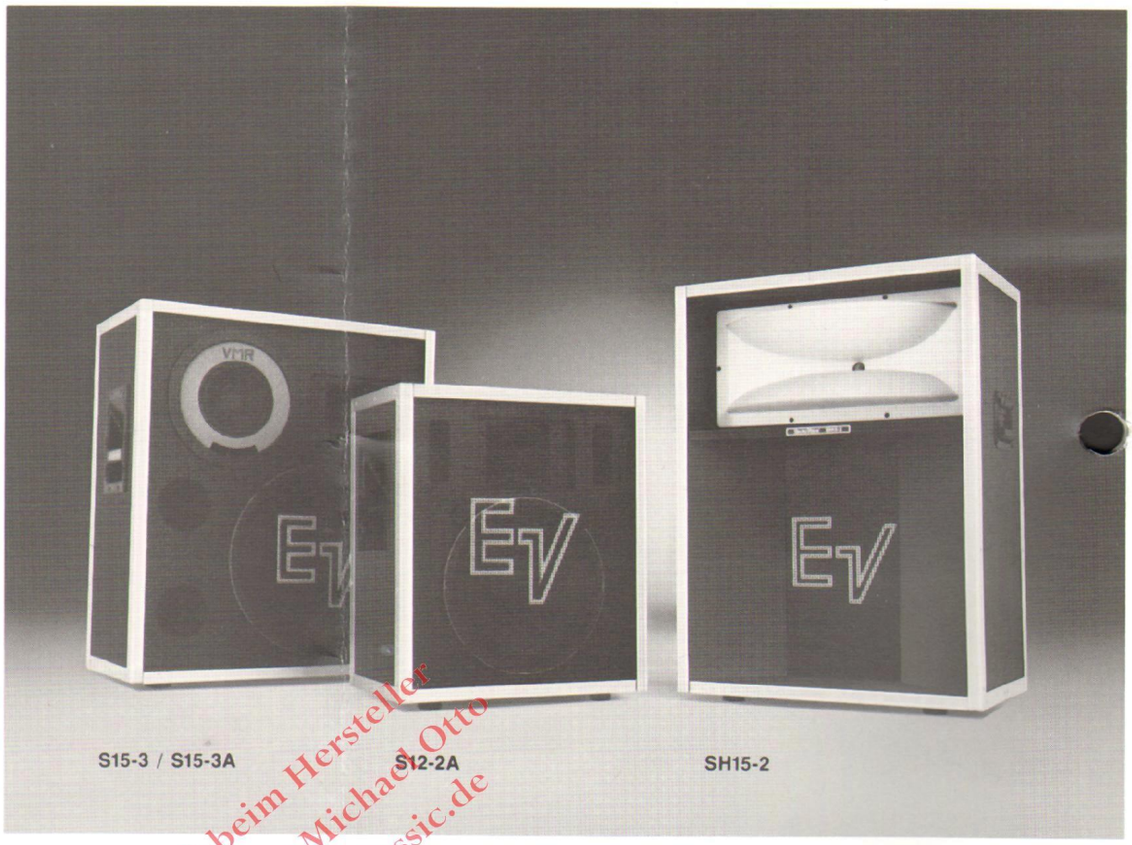
Instrument and Sound Reinforcement Systems



Stage Speaker Systems

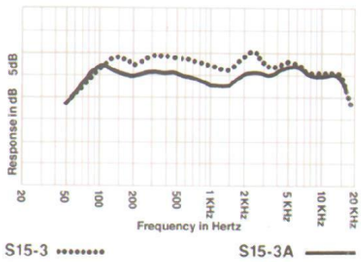
The S12-2A, S15-3 and S15-3A are designed not only to be used as your main vocal and instrumental sound reinforcement systems, but are also superbly suited for side-fill monitoring. All three systems feature the ST350A tweeter for wide 120° dispersion necessary to let your audience hear every note accurately, regardless of where they're sitting. The S15-3 and S15-3A also have E-V's exclusive VMR® vented midrange speaker. VMR is the only cone midrange driver available that not only can keep up with the high sound pressure levels available from E-V's Thiele-design bass cabinets but also match the uniform dispersion of the ST350A tweeter. The result is a redefinition of the clarity and natural sound quality possible in a P.A. system. In fact, the S15-3 with its EVM-15L-loaded bottom end has become the standard against which all other competitive systems are judged. Whether used for vocal P.A., instrument or as monitors, the S12-2A, S15-3 and S15-3A are the best small touring systems you can buy.

The SH15-2 horn-loaded, two-way stage speaker system is designed for those applications requiring both full-range and very high output. It is a full *2 times* as efficient as many other systems. That means you only need half the amplifier power to put out the same screaming SPL's as other systems. The high-frequency section of the SH15-2 uses an Electro-Voice DH1202 driver coupled to a HR-series Constant Directivity™ horn. This allows each person in the 90° coverage pattern to enjoy the same sound quality that is heard directly on axis. The low-frequency section has a 15-inch speaker mounted in a vented-horn enclosure. This offers the double advantage of wide frequency response and low distortion that's associated with vented boxes plus the "blow them away" sound pressure levels of a folded horn system. If your sound reinforcement or monitoring requirements call for a system that can outpower just about anything else in the market, the SH15-2 is the choice.



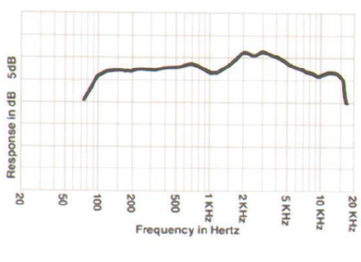
Specifications:	S15-3 / S15-3A	S12-2A	SH15-2
Frequency Response:	50-16,000 Hz	75-16,000 Hz	60-15,000 Hz
Sound Pressure Level:	120 dB (4′ on axis, 150 watts in) 115 dB (4′ on axis, 100 watts in)	115 dB (4′ on axis, 100 watts in)	118 dB (4′ on axis, 100 watts in)
Crossover:	600 Hz & 4000 Hz	3000 Hz	1500 Hz
Long Term Power Handling Capacity:	150 watts 100 watts	100 watts	100 watts
Impedance:	8 ohms nominal	8 ohms nominal	8 ohms nominal
Inputs & Outputs:	parallel ¼" phone jacks	parallel ¼" phone jacks	parallel ¼" phone jacks
Dimensions:	$28^{11}/_{16}$" x $24^{3}/_{8}$" x $13^{13}/_{16}$" hwd	$21^{13}/_{16}$" x $18^{5}/_{8}$" x $11^{5}/_{8}$" hwd	$29^{3}/_{4}$" x $21^{3}/_{8}$" x 15" hwd
Weight:	90 lbs 76 lbs	48 lbs	84 lbs

S15-3 / S15-3A

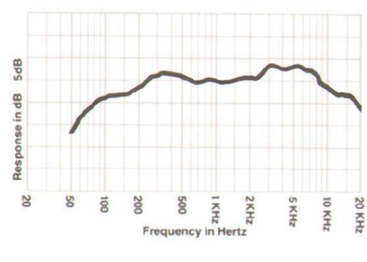


S15-3 •••••••• S15-3A ——

S12-2A



SH15-2



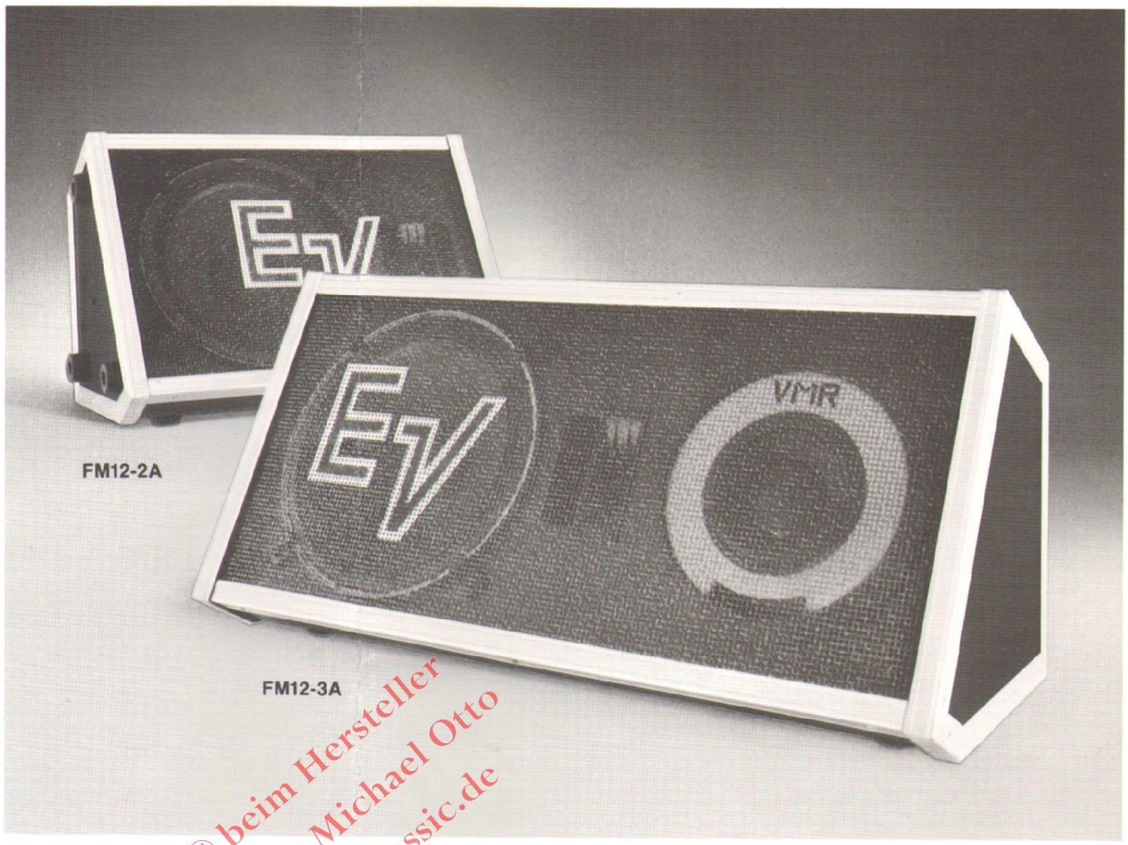
Stage Monitors

Monitors are meant to do one thing – let you hear yourself as accurately as possible. To let you hear every nuance, every syllable, when intonation is critical. That's something not all monitors are capable of doing.

Both the FM12-2A and FM12-3A monitors use the T35 tweeter and an Electro-Voice woofer. Essentially flat to 85 Hz, bass response is tailored for vocal monitoring. Tweeter dispersion characteristics get you maximum sound where it is needed most, in front of the monitor. The high-frequency dispersion pattern controls the sound spread to other vocal or instrument mikes.

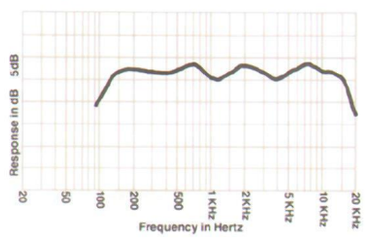
The FM12-3A three-way system also incorporates the VMR™ vented midrange speaker. With the VMR, you won't have to settle for the pinched "honky" sound associated with poorly designed small midrange horn drivers, and you'll still be able to get the midrange sound pressure levels you need in a vocal monitor.

Both the FM12-2A and FM12-3A can be mounted at 30°, 60°, vertically, or on the optional 480A stand for up and out of the way side monitoring.

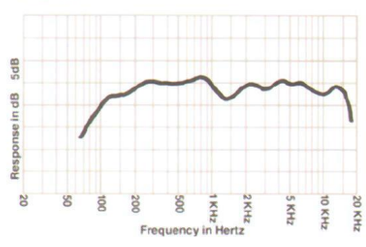


Specifications:	FM12-2A	FM12-3A
Frequency Response:	85-16,000 Hz	80-16,000 Hz
Sound Pressure Level:	115 dB (4′ on axis, 100 watts in)	115 dB (4′ on axis, 100 watts in)
Crossover:	5000 Hz	1000 Hz & 5000 Hz
Long Term Power Handling Capacity:	100 watts	100 watts
Impedance:	8 ohms nominal	8 ohms nominal
Inputs & Outputs:	parallel ¼" phone jacks	parallel ¼" phone jacks
Dimensions:	15" x 21⅞" x 13¼" hwd	15" x 31⅞" x 13¼" hwd
Weight:	43 lbs	52 lbs

FM12-2A



FM12-3A



Stage Speaker Systems

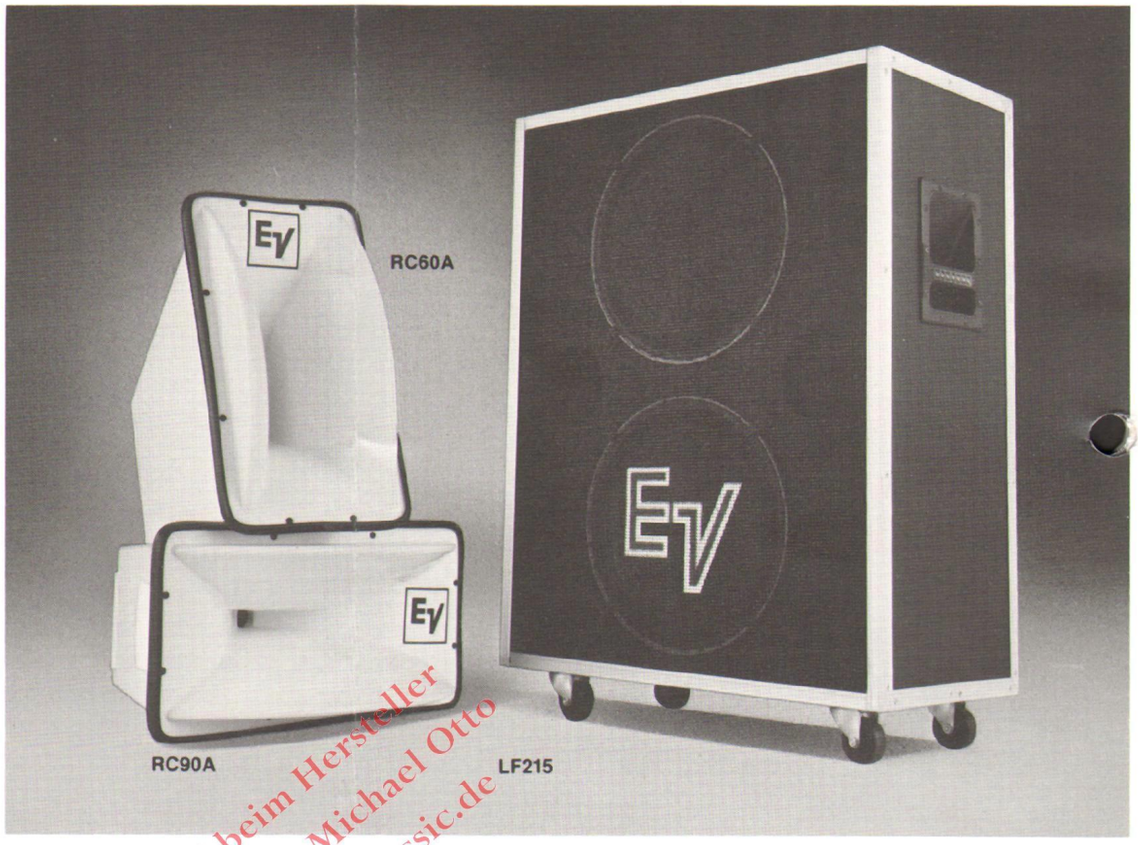
Electro-Voice speaker components, coupled with the appropriate electronics and power amplification, offer you a compact system for on-stage sound reinforcement that is virtually without comparison.

Components are the best way to deliver high-level, high-accuracy sound exactly where you want it. Only EV offers you total systems appropriate to component P.A. without the costly failures associated with "cut-and-try," component rigs.

The RC series of encased Constant Directivity horns is the heart of the system. The RC horn design is patented[1] by Electro-Voice. These horns offer precise, uniform pattern control over a wide range of frequencies. The advantage to you is that your audience can hear the same clear, intelligible sound anywhere within the rated coverage angle of the horn – not loud in front, muddy in back, or dull at the sides. Every seat in the house will be the best seat in the house!

The RC horns come complete with E-V's famous DH1506 high-frequency driver. They have an integral fiberglass case for protection, with molded-in handles for portability and rubber feet for non-skid stacking. A 60-microfarad series capacitor provides protection against low-frequency and DC inputs such as those produced by amplifier turn-on/turn-off and some types of amplifier failure.

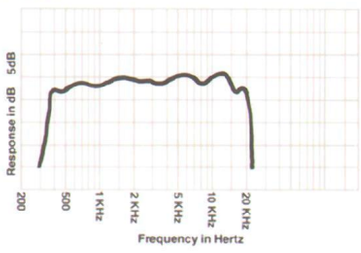
The LF215 is a superb low-frequency system that mates perfectly with the RC horns. It houses two EVM15B Series II loudspeakers. Like the other E-V stage systems, the LF215 is constructed of ¾-inch plywood, covered in a durable black vinyl and trimmed with edge-protecting aluminum trim. A metal mesh grille protects the speakers. Integral comfortable handles and casters make setups simple.



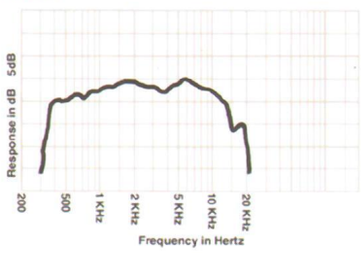
Specifications:	RC60A	RC90A	LF215
Frequency Response:	500-20,000 Hz	500-20,000 Hz	40-5000 Hz
Sound Pressure Level:	126 dB (4' on axis, 30 watts in)	124 dB (4' on axis, 30 watts in)	126 dB (4' on axis, 400 watts in)
Crossover:	800 Hz	800 Hz	800 Hz
Long Term Power Handling Capacity:	30 watts	30 watts	400 watts*
Impedance:	8 ohms	8 ohms	4 ohms
Inputs & Outputs:	parallel ¼" phone jacks	parallel ¼" phone jacks	parallel ¼" phone jacks
Dimensions:	12" x 21½" x 22½" hwd	12" x 24" x 21½" hwd	38¾" x 28¼" x 15½" hwd
Weight:	40 lbs	40 lbs	103 lbs

*Per EIA Standard RS-426A

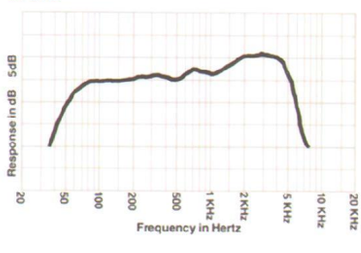
RC60A



RC90A



LF215



1. U.S. Patent number 4071112, January 31, 1978, applied for September 30, 1975.

Crossover/Equalizer Networks

The Electro-Voice XEQ crossover/equalizers are the heart of a component P.A. system. The XEQ's perform the traditional function of frequency division – passing low frequencies to the woofer and high frequencies to the treble horn and driver. But unlike other crossovers, the XEQ series provides additional tailoring that precisely matches the performance of E-V horns to that of the LF low-frequency system. The result is uniform frequency response across the entire frequency range.

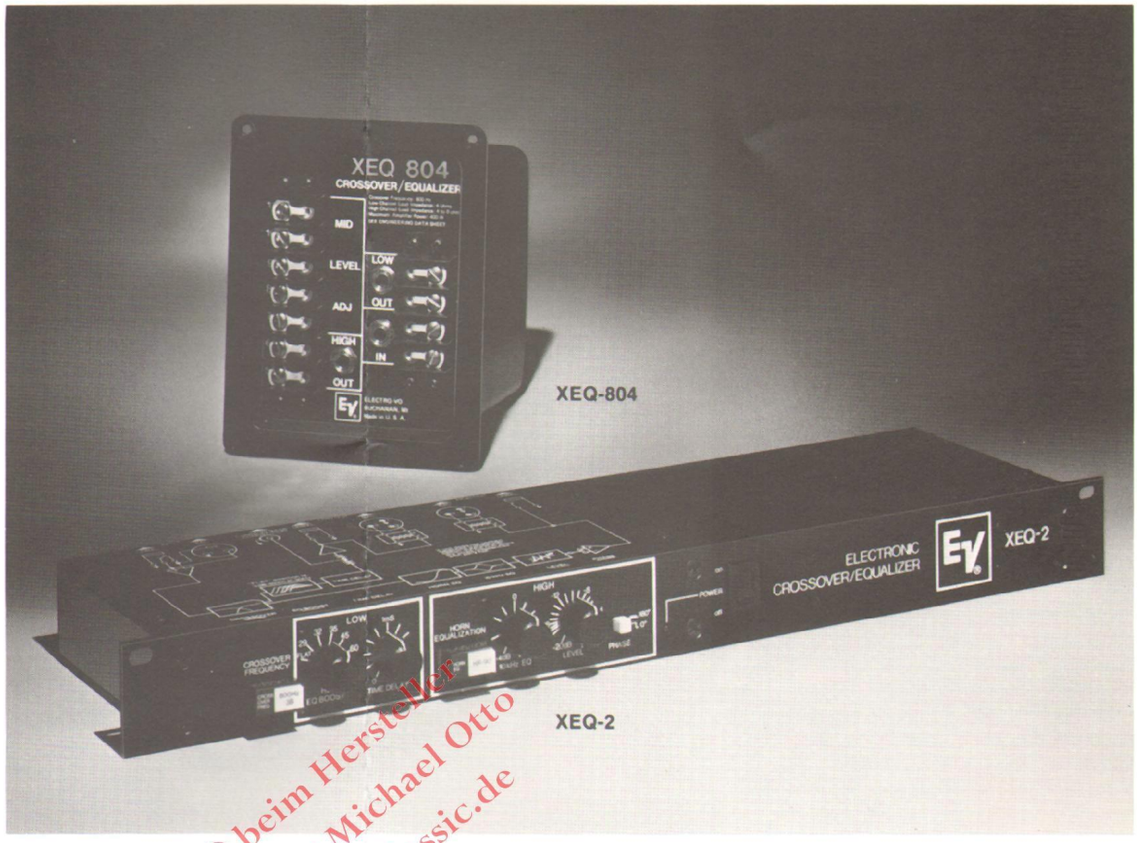
The XEQ-804 is a passive, high-level network designed for placement between a single power amplifier channel and the low and high-frequency speaker systems. The XEQ-804 matches any single or dual E-V horn/driver combination to a 4-ohm, dual-woofer system like the E-V LF215. Input and output terminations include convenient ¼-inch phone jacks. Horn sensitivity adjustment and equalization are achieved without resistive losses. The XEQ-804 may be used with power amplifiers rated at up to 400 watts continuous sine wave or "RMS" output.

The XEQ-2 is an active, low-level crossover/equalizer for bi-amplification. In bi-amplified systems, crossover is achieved before power amplification so that a separate amplifier channel is used for the low and high-frequency speaker systems. Bi-amplification allows for the most flexible and accurate crossover/equalization, and it can reduce system distortion when a system is operated close to its maximum capacity.

The particular crossover and equalization characteristics of the XEQ-2 are set by plug-in module. Three crossover-frequency modules are supplied with the XEQ-2. The X500 and X800 modules provide frequencies of 500 and 800 Hz. The BMK blank module permits construction of any other frequency between 100 and 8,000 Hz. In addition, X125, X1500, X3500 and X7000 modules are available.

Horn/driver equalization modules must be ordered separately and vary with the particular horn chosen. In complex systems employing different RC horns, the module for the horns covering the near field should be chosen. The XEQ-2 is shipped with a "flat" module that provides flat response to the high-frequency driver above the chosen crossover frequency. A continuously variable control on the XEQ-2 provides for additional high-frequency tailoring above 5,000 Hz, ± 4 dB at 10,000 Hz.

In addition to a traditional switch for reversing the polarity of the high-frequency output, the XEQ-2 features a unique variable time-delay circuit in the low-frequency output. At typical crossover frequencies, the delay can be varied between about 0 and 2 milliseconds. This permits precise smoothing of frequency response in the crossover region – not possible with conventional networks.



Specifications:	XEQ-804	XEQ-2
Channel Configuration:	Monaural	Monaural
Distortion at Max. Output: (+20 dBm)	NA	.02% typical
Crossover range:	800 Hz	100-8000 Hz (determined by module*)
Attenuation Rate Outside of Crossover Region:	12 dB per octave (low-pass output) 18 dB per octave (high-pass output)	18 dB per octave
Power Requirements:	NA	90-120V, 50/60 Hz
Dimensions:	7" x 5" x 6 7/16" hwd	1¾" x 19" x 5" hwd
Weight:	7½ lbs	4¾ lbs

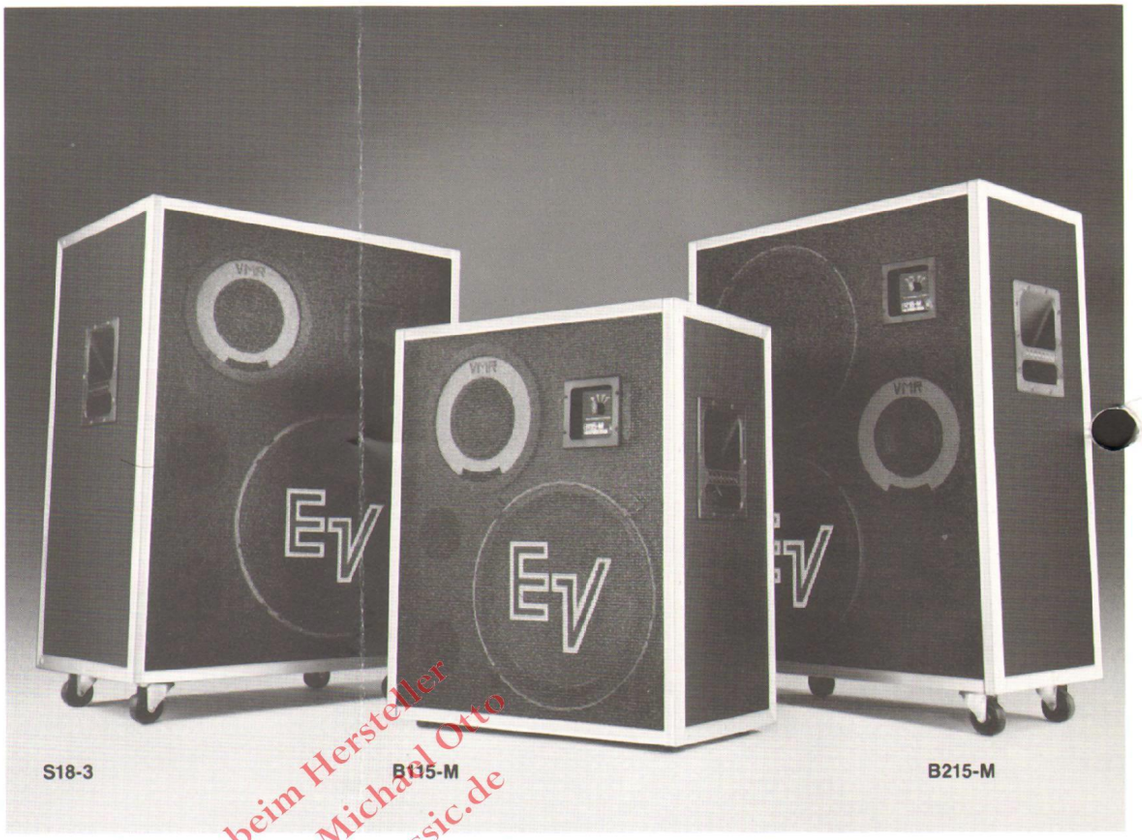
*Crossover Frequency Modules: X125, 125 Hz; X500, 500 Hz; X800, 800 Hz; X1500, 1500 Hz; X3500, 3500 Hz; X7000, 7000 Hz; BMK, Blank Module Kit (X500, X800 and BMK supplied with XEQ-2)

Horn Equalization Modules: EQA, RC90A; EQC, RC60A; EQF, Flat (EQF supplied with XEQ-2)

Instrument Speaker Systems

The S18-3 is the ideal system for instruments which have wide frequency response requirements such as synthesizers and keyboard instruments. The EVM™18B woofer used in the S18-3 maintains full, low-distortion output to 40 Hz. The VMR midrange driver and ST350A tweeter offer the same superb reproduction found in E-V's stage systems. A front mounted midrange and tweeter level control allows the performer to adjust the high end of the system while performing. For those applications that require it, the S18-3 is bi-ampable. The simple interchange of two 9-pin plugs on the rear connector panel converts the S18-3 for use with an active low-level crossover (600 to 800 Hz). As in all E-V stage systems, the S18-3 includes High-Frequency Auto Limiting which responds instantaneously to excessive power inputs resulting in absolute tweeter protection without audible side effects.

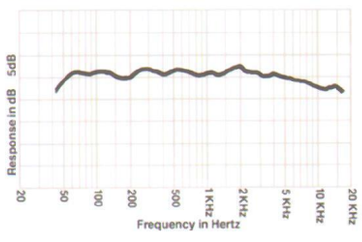
The B115-M and B215-M Bass Guitar Systems were specifically designed for the performing bass guitar player. These two speaker systems evolved because of the need for bass players to have a full-range sound available to them. The lead bass player no longer is confined to the familiar dull, single driver sound associated with most current bass systems. The B115-M and B215-M both use EVM-15L low frequency speakers. The B215-M uses two. Both cabinets are carefully tuned to 40 Hz to reduce speaker diaphragm excursion at the lower bass guitar notes and to prevent bottoming under any normal conditions. The B115-M is designed with a cleaner sound preferred by many studio musicians and jazz bassists. The B215-M has a slightly heavier bass response, and its higher SPL capability makes it ideal for the rock-oriented musician. In both systems the EVM's operate full range. At 600 Hz, Electro-Voice's exclusive VMR comes in. The VMR gives the bass player a new freedom to explore percussive bass sounds and lead-bass riffs. In addition, greater midrange dispersion is obtained at the high end, offering the listener the same brilliant sound off-axis as he would get on-axis. Both the B115-M and B215M incorporate a front-mounted midrange level control allowing the user to tailor the system to achieve the exact degree of brightness desired.



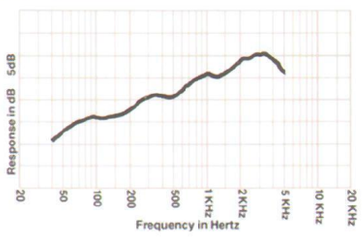
Specifications:	S18-3	B115-M	B215-M
Frequency Response:	40-16,000 Hz	40-5000 Hz	40-5000 Hz
Sound Pressure Level:	121 dB (4' on axis, 200 watts in)	124 dB (4' on axis, 200 watts in)	127 dB (4' on axis, 400 watts in)
Crossover:	600 Hz & 4000 Hz	600 Hz	600 Hz
Long Term Power Handling Capacity:	100 watts	200 watts*	400 watts*
Impedance:	8 ohms nominal	8 ohms nominal	4 ohms nominal
Inputs & Outputs:	parallel ¼" phone jacks	parallel ¼" phone jacks	parallel ¼" phone jacks
Dimensions:	35½" x 28" x 19⅜" hwd	28¾" x 24½" x 13¾" hwd	38¾" x 28¼" x 15¼" hwd
Weight:	120 lbs	93 lbs	117 lbs

*Per EIA Standard RS-426A

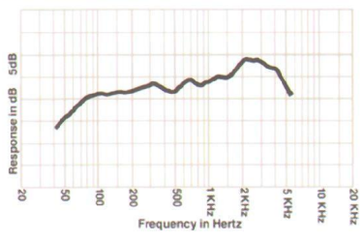
S18-3



B115-M



B215-M



EVM™ Series II
Musical Instrument Loudspeakers

Years of experience, testing and design refinement of Electro-Voice EVM loudspeakers has resulted in a series of speakers that musicians "love." There's no other way to say it. They have the sound musicians ask for, and they have the ruggedness, durability and long-term power handling capability that will keep you playing while many so-called competitive speakers have gone up in smoke. For these reasons EVM's are factory supplied options in many system manufacturers' "premiere" enclosures. That's also why they are the replacement speakers of choice by many musicians and concert sound men. Five specialized designs make your selection easy.

The EVM-12L and EVM-12S Series II are superb reloads for your 12-inch enclosures. The EVM-12L has the sound that has become a standard to which all other speakers are compared. The shallower cone of the EVM-12S offers the option of more output in the critical 2000-3000 Hz range, resulting in a more brilliant, biting sound preferred by many rock musicians.

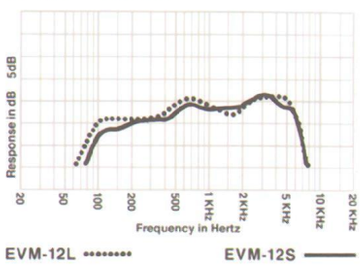
The EVM-15B Series II has long been considered the "ultimate" bass instrument or sound reinforcement speaker. For the lead guitar player who prefers 15-inch cabinets, the EVM-15L is designed to complement his needs. The 15L features a stiffer cone material resulting in a clean, tight sound that won't get lost in the competition with other instruments. It is also at home in bass cabinets where wider than normal frequency response is desired.

EVM-18B Series II 18-inch loudspeaker is the only logical choice for the bass [illegible]r, synthesist or organist who re-[illegible]s the absolute best in low-frequency reproduction.

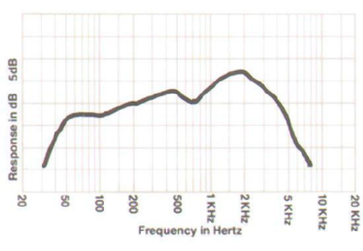
All EVM's are rated at 200 watts continuous power handling capacity per EIA standard RS-426A.* Professionals have come to know that EVM's handle that kind of power routinely. The edge-wound, flat-wire voice coil and refinements like beryllium copper flat-wire coil leads, plus heavy-duty input terminal connections make it easier to get your sound out where you want it.

Specifications:	EVM-12S Series II	EVM-12L Series II	EVM-18B Series II	EVM-15L Series II	EVM-15B Series II
Frequency Response:	80-7000 Hz**	80-7000 Hz**	50-5000 Hz**	60-6000 Hz**	60-3500 Hz**
Sound Pressure Level:	122.5 dB (at 4', 200 watts in)	121.5 dB (at 4', 200 watts in)	122 dB (at 4', 200 watts in)	124.5 dB (at 4', 200 watts in)	124.5 dB (at 4', 200 watts in)
Power Handling Capacity (Per EIA Standard RS-426A)					
Long Term:	200 watts	200 watts	200 watts	200 watts	200 watts
Instantaneous Peak:	800 watts	800 watts	800 watts	800 watts	800 watts
Nominal Impedance:	8 ohms	8 ohms	8 ohms	8 ohms	8 ohms
Voice Coil Diameter:	2½ in.	2½ in.	2½ in.	2½ in.	2½ in.
Magnet Structure Weight:	16 lbs.	16 lbs.	16 lbs.	16 lbs.	16 lbs.
Dimensions:	12¼"diam. x 5½" deep	12¼"diam. x 6" deep	18"diam. x 8" deep	15"diam. x 7" deep	15"diam. x 7" deep
Weight:	19 lbs.	19 lbs.	22 lbs.	21 lbs.	21 lbs.

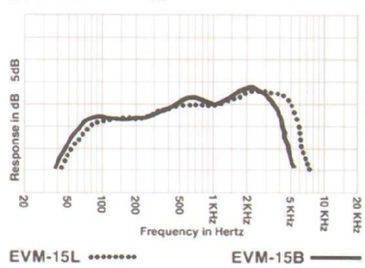
EVM-12L EVM-12S



EVM-18B



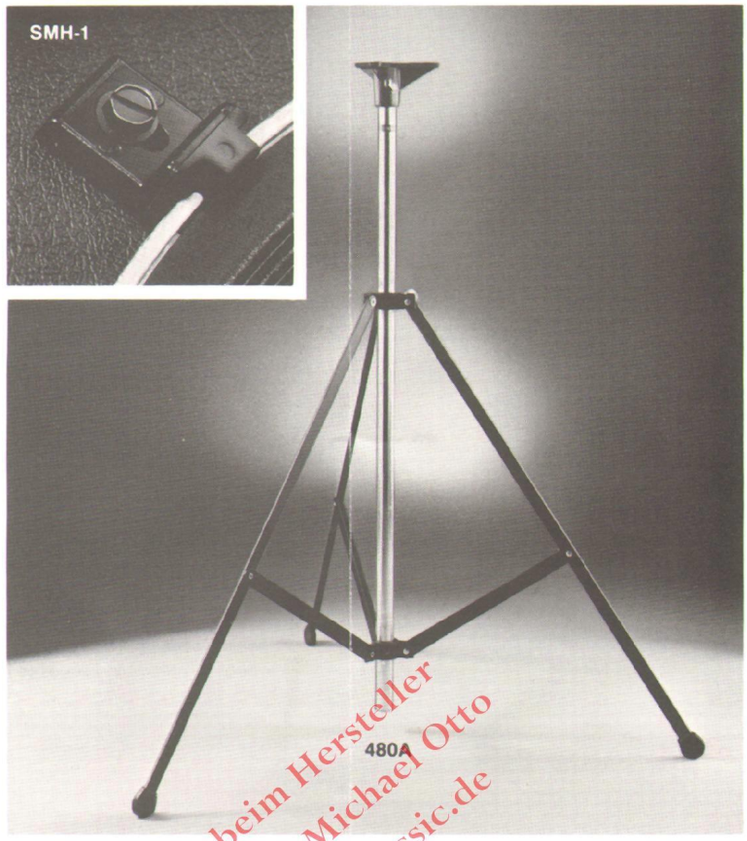
EVM-15L EVM-15B



*See appropriate EVM engineering data sheets for a complete power test description.

**Low frequency limit listed is for specific, relatively small enclosures. Response is extended with larger enclosures.

Accessories



SMH-1 Speaker Mounting Hardware

All EVM's can be front-mounted by using the SMH-1 mounting hardware kit. The kit includes four die-cast clamps, four slotted hex washer screws and four teenut assemblies.

480A Stand

The S12-2A, S15-3, S15-3A, FM12-2A and FM12-3A can all be mounted on the 480A stand. This offers a decided advantage if you have to get your equipment up and out of the way, as in side monitoring. In vocal P.A. applications, where sight lines would otherwise be blocked, it may be a necessity. The 480A is adjustable up to 58" in height. All the above named speaker cabinets have built-in internal teenuts for stress-free attachment.

WARRANTY (Limited)

Electro-Voice Music Loudspeaker Systems, Loudspeakers and Accessories are guaranteed for five years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish or appearance items or malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

WARRANTY (Limited)

Electro-Voice Professional Sound Reinforcement Electronic Products are guaranteed for two years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish or appearance items or malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

Electro-Voice engineering continually improves existing products, as well as creating new ones. Thus specifications given in this brochure are subject to change without notice. For complete specifications consult the appropriate Engineering Data Sheet. Also consult the appropriate EVM data sheet for a complete description of power testing.

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