Electro-Voice®

Sound Reinforcement Systems

Stage Speaker Systems

NEW SYSTEM DESIGNS

The new generation of Electro-Voice stage speaker systems represents the best value and performance available to working musicians and sound professionals. EV stage speakers offer specialized systems for main vocal sound reinforcement, as well as monitors and instrument cabinets. Each is designed to deliver high quality sound reliably, night after night, year after year.

NEW CABINET MATERIAL

Cabinet construction features all-dado cut joints and an exciting new cabinet material. The exclusive cabinet material chosen for these new products, called Road-Wood ™, represents a breakthrough in wood fiber technology. Consisting of long, thin strands of hardwood which are laid down in aligned layers (a technique similar to the cross-laminating of veneers in plywood), these alternate layers are aligned perpendicular to each other and bonded with a phenolic resin. This fiber orientation is the key to the strength offered by Road-Wood. Strength, dimensional stability and water resistance help make Road-Wood the best high-quality cabinet material available.

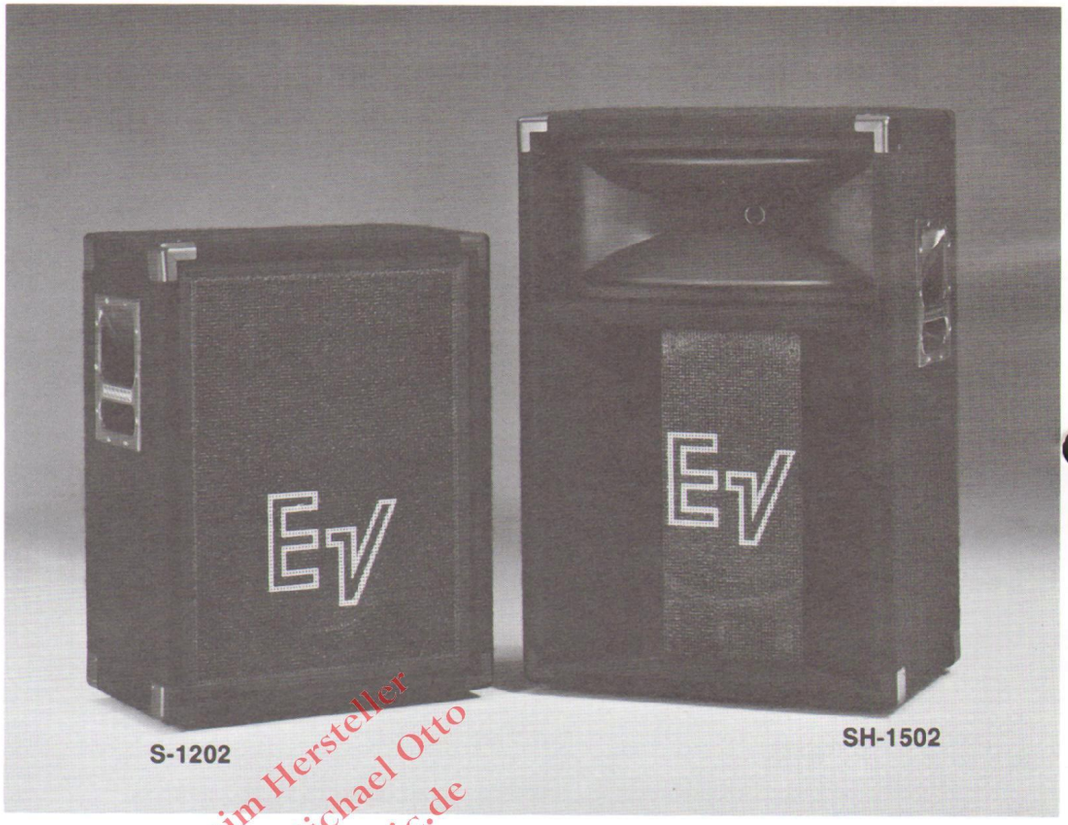
NEW CABINET DETAILING

Covered with a durable custom-made carpet-type material and protected with heavy duty steel corners, the new EV stage systems will look good for years. Additional features include removeable or reversible steel speaker grilles (for easy access to the speaker components), massive rubber feet and rugged recessed handles.

S-1202

The S-1202 Full Range Compact Sound Reinforcement System is a time coherent, constant-directivity, high efficiency design, capable of handling 300 watts continuous power. The high frequency section of this two-way system utilizes a new flat-mouth 90° x 40° die cast horn coupled to the new pro-music titanium driver.

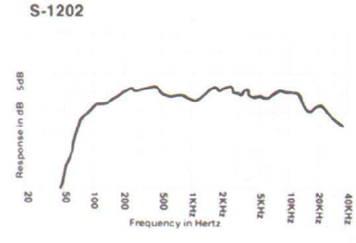
A specially designed 1500 Hz crossover/equalizer matches the high frequency horn to an EVM Pro-Line 12S woofer which features beryllium copper lead wires connected to a low mass edgewound voice coil constructed of high temperature materials. The massive 16 pound magnetic structure is appropriately insulated using the EV PROTEF™ process. Designed using Thiele-Small parameters for efficient low-frequency response to 75 Hz (3 dB down), and usable response down to 60 Hz, the S-1202 also features an integral stand mount socket to fit either the 480A or 100T stand. All this makes the S-1202 an exciting new addition to the EV stage systems line.



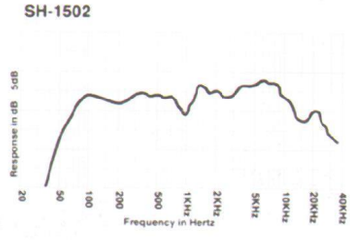
SPECIFICATIONS	S-1202	SH-1502
Frequency Response: (-3 dB points)	75 Hz-20 kHz	62 Hz-20 kHz
Usable Frequency Response: (-10 dB points)	60 Hz-23 kHz	46 Hz-23 kHz
Long-Term Continuous: Power Handling*	300 w	200 w
Short-Term Peak Power: Handling*	1200 w	800 w
Nominal Impedance:	8 ohms	8 ohms
Sensitivity 1w, 1m: (3.3 ft)	101.5 dB	100 dB
SPL @ Rated Long Term Power:	125.5 dB	122.5 dB
Nominal Dispersion:	90°x40°	90°x40°
Crossover Frequency:	1500 Hz	1500 Hz
Dimensions (Height x Width x Depth):	24.7" H 19.1" W 11.7" D	31.0" H 21.0" W 14.6" D
Net Weight:	66 lb.	78 lb.

*Per EIA 426A Power Test

S-1202



SH-1502

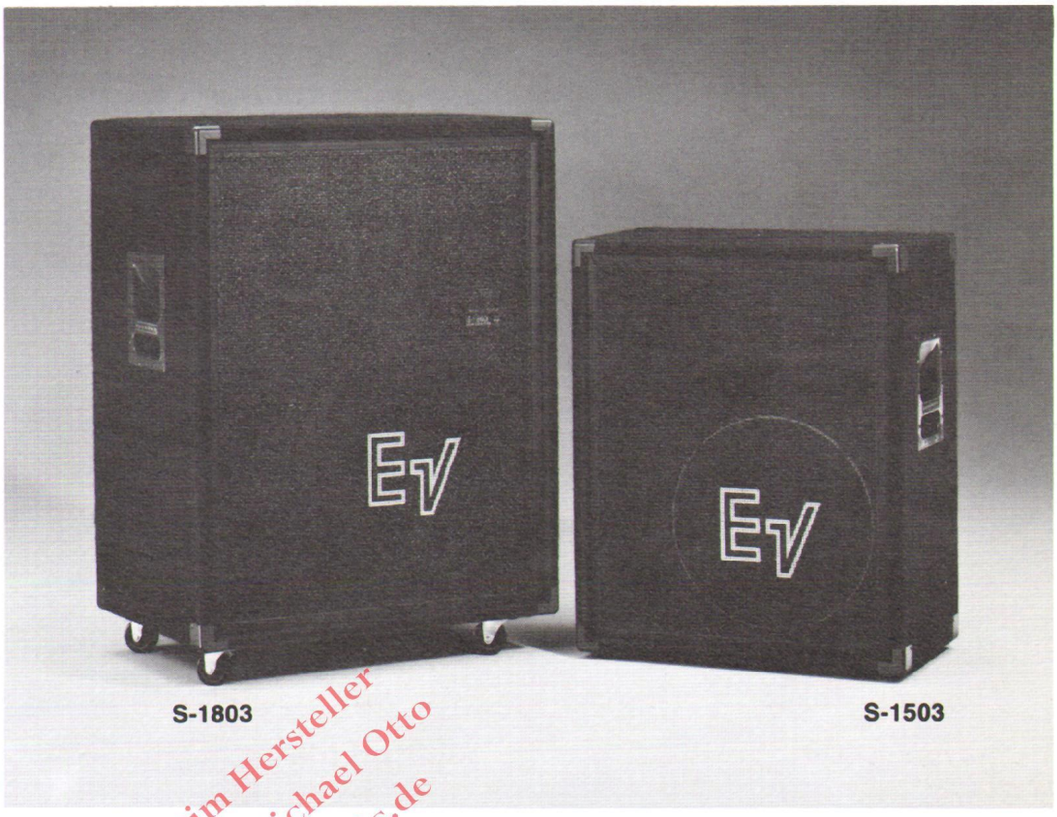


Stage Speaker System
Keyboard Reinforcement Speaker

SH-1502
The SH-1502 Full Range, High-Level, Club Sound Reinforcement System is a two-way all horn loaded stage speaker system. It features a new high-efficiency, high-frequency driver with a field replaceable diaphragm assembly. This special pro-music driver is mounted on a 90° x 40° constant directivity horn and features a titanium diaphragm coupled with the Electro-Voice convex drive "TIME PATH"™ compression equalization technologies.* The exceptional high-frequency response of this driver is useable well beyond 20 kHz, offering crisper, cleaner highs unmatched by competitive products. The high-frequency level of the system can be adjusted by a level control which is recessed on the back of the cabinet. The low frequency section features a newly-engineering high-power 15" speaker in a vented-horn enclosure, delivering full, crowd-pleasing bass response. The SH-1502 is highly efficient and at its full power rating of 200 watts continuous can generate sound pressure levels in excess of 120 dB.

S-1503
The S-1503 Three-Way High-Level Music Playback/Sound Reinforcement System features a higher power EV-exclusive VMR® vented midrange speaker. A new high efficiency flatwire voice-coil coupled with new high temperature technology makes the VMR® the only cone midrange available that can keep up with the high sound pressure levels possible from Thiele-Small aligned bass enclosure designs. A new 15" pro-music extended voice-coil, low-frequency woofer that handles 400 watts of long-term "real-world" power (per EIA 426A power tests) is featured in the S-1503. This high-efficiency proprietary speaker also offers the two exclusive EV features, PROTEF™ and TIR ™. PROTEF is a Teflon® based coating applied to the inside diameter of the magnetic structure's top plate, adjacent to the voice coil. In live music, violent power peaks occasionally will last for several seconds. This can sometimes expand a normal voice coil in diameter so that it contacts the top plate, damaging the coil. PROTEF™ provides protection by lubricating any rubbing contact and inserting electrical insulation between the coil and the top plate. The TIR™ or thermal inductive ring, is an aluminum ring fastened to the magnetic structure's pole piece. This acts to control magnetic drive inductance and, more importantly, to provide a major heat transfer path from the top of the voice coil, where thermal weakness has historically taken its toll in extended coil designs. Dispersion at crossover point ideally matches the VMR® to the uniform dispersion of the ST350A constant-directivity tweeter. The result is a redefinition of the transparency and quality possible from a sound reinforcement system. The S-1503 will continue to be the standard against which all other competitive systems are judged for many years to come.

*Patent Pending

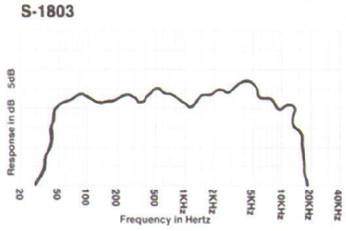


S-1803
The S-1803 Keyboard Reinforcement System offers low distortion and wide frequency response (useable response 35 Hz to 18 kHz) making it ideal for synthesizers and other keyboards. The special new proprietary 18" low-frequency speaker has an extended length, high temperature voice coil, for clean, powerful lows, and is coupled to the new high-performance VMR® cone midrange, and the ST350B tweeter. The ST350B is protected by an electronic Auto-Limiter, which responds instantaneously to excessive power inputs resulting in absolute tweeter protection without audible side effects. A front mounted midrange and tweeter level control allows user adjustment of high frequency response as performance situations require. For applications where it is required, the S-1803 can be bi-amped. The simple interchange of connectors on the rear panel quickly converts the system for use with a low-level active crossover (600 to 800 Hz crossover frequency). The EV S-1803 keyboard system is truly in a class by itself and offers the ultimate sound to even the most critical ear.

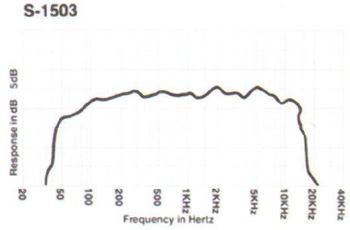
Specifications:	S-1803	S-1503
Frequency Response: (-3 dB points)	50 Hz-16 kHz	65 Hz-16 kHz
Usable Frequency Response: (-10 dB points)	35 Hz-18 kHz	40 Hz-18 kHz
Long-Term Continuous Power Handling*:	200 w	200 w
Short-Term Peak Power Handling*:	800 w	800 w
Nominal Impedance:	8 ohms	8 ohms
Sensitivity 1w, 1m: (3.3 ft.)	99.5 dB	100 dB
SPL @ *Rated* Long Term Power:	122 dB	122.5 dB
Nominal Dispersion:	120°x80°	120°x80°
Crossover Frequency:	600 Hz & 4 kHz	600 Hz & 4 kHz
Dimensions (Height x Width x Depth):	35.5" H 28.0" W 19.4" D	28.7" H 24.4" W 13.8" D
Net Weight:	134 lb.	105 lb.

*Per EIA 426A Power Test

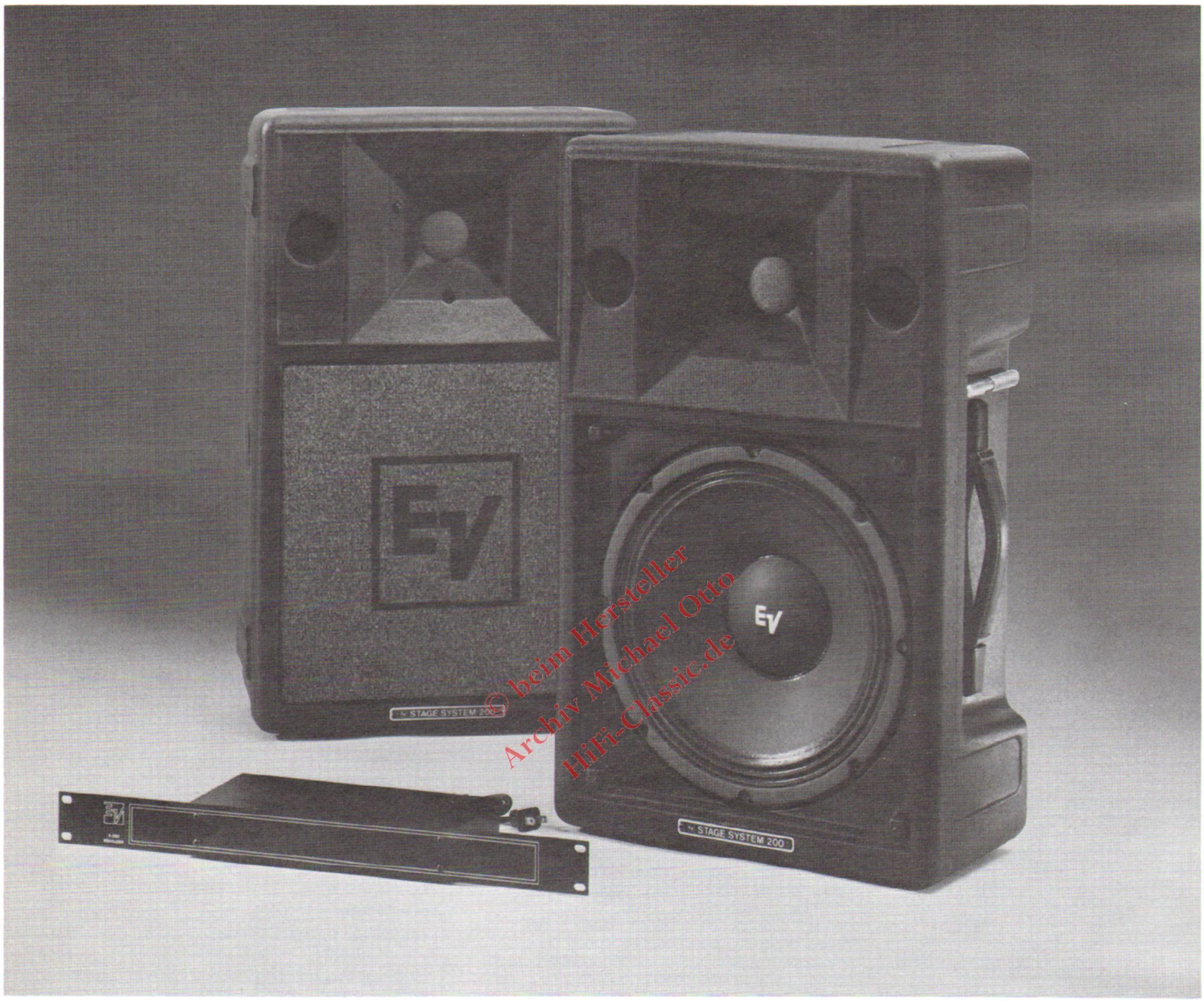
S-1803



S-1503



Compact Stage Speaker Systems



S-200

The Stage System 200 brings small, highly-efficient, portable sound reinforcement system design a bold new step forward. It's a state-of-the-art, high-sensitivity speaker package that can handle 300 watts of continuous power as two-way, time-coherent system, that delivers high quality EV "constant-directivity" sound that is unequalled by any other compact speaker.

The S-200 presents the latest innovations from EV, the people who started the revolution in both "constant-directivity" horns and optimally-vented low-frequency enclosures. Capable of producing sound pressure levels in excess of 120 dB at full power, the S-200 offers full bandwidth reproduction and high-output without sacrificing sonic quality. All this sound reaches every seat in the house loud and clear, since the constant-directivity design results in uniform and dependable audience coverage without "hot spots" or "dead zones" at critical frequencies-over a full 100º by 100º area. Never before has this level of performance been offered in an enclosure of this small size and great convenience.

The S-200 speaker system features a one piece cabinet, utilizing a special molding technique applied to speaker enclosures only by Electro-Voice. The construction of the wall is a unique, dual layer sandwich with a foam cell structure for the internal wall layer. This yeilds a wall thickness similar to wood cabinets, a rigid structure that is virtually indestructible, and a finish that is impervious to nearly all chemicals. The small size (occupies less than 1.8 cubic feet), light weight (36 lbs.) and convenient shape make it ideal to carry or set-up. The cabinet also features molded-in inserts to allow vertical and horizontal mounting on the optional 100T telescoping stand and a convenient recessed luggage-type handle at the cabinet's center of gravity making it a breeze to carry. A self storing post is provided which, when threaded into an insert in the back of the enclosure, turns the S-200 into a two position floor monitor.

Designed to operate either with or without the optional S-200 active electronic equalizer, the stage system 200 can be used as a high-quality, reliable sound reinforcement or stage monitor cabinet just about anywhere.

S-200 Specifications

EXCLUSIVE HIGH-DENSITY MOLDED CABINET.

OPTIMALLY TUNED THIELE-SMALL ALIGNED VENT FOR MAXIMUM LOW-FREQUENCY.

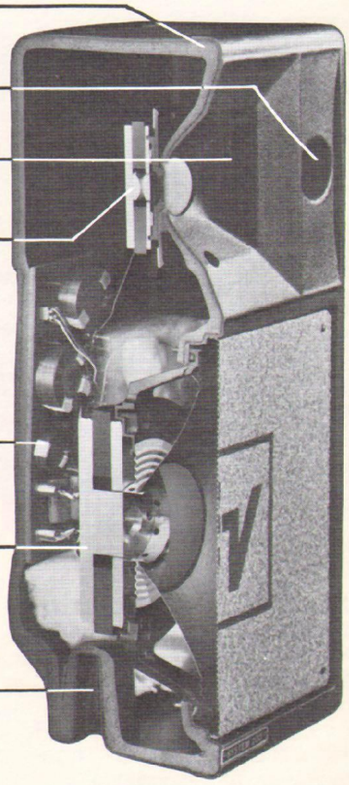
EXCLUSIVE 100° X 100° HIGH FREQUENCY DIRECTOR.

EXCLUSIVE HIGH-POWER SUPER-DOME™ TWEETER.

SPECIAL DESIGN 2000 Hz CROSSOVER FEATURING AIR CORE COILS AND COMPUTER GRADE CAPACITORS.

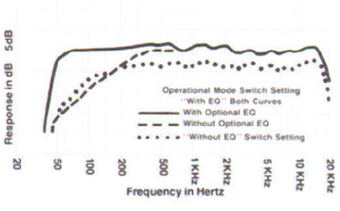
EVM 12S PRO-LINE 300 WATT WOOFER WITH EXCLUSIVE EV PRO-TEF™ AND OTHER HIGH-TEMPERATURE TECHNOLOGIES.

INTEGRAL STAND MOUNT ADAPTER.



Specifications:	S-200
Frequency Response with Optional Equalizer:	50—18,000 Hz ± 3 dB
Without Equalizer:	90—18,000 Hz ± 3 dB
Usable Low Frequency Limit, With Optional Equalizer:	40 Hz
Without Equalizer:	50 Hz
Reference Efficiency (½ Space), With Optional Equalizer:	5.9%
Without Equalizer:	2.4%
Sensitivity With Optional Equalizer:	100 dB
Without Equalizer:	96 dB
Nominal Impedance:	8 ohms
Power Handling Capacity (Long Term Average):	300 watts
Crossover Frequency:	2,000 Hz
Crossover Slope:	12 dB/octave
Dispersion Angle Included by 6-dB-Down Points (One-Third Octave Bands of Pink Noise), 250—500 Hz Inclusive:	150° ±25°
500—10,000 Hz:	100° ± 25°
10,000—20,000 Hz Inclusive:	60° ± 15°
Transducer Complement:	12 in. woofer (Pro Line EVM 12S) 1.5 in. Tweeter coupled to an 8 in. director
Total Magnetic Structure Weight:	8.4 kg (18 lbs. 8 oz.)
Control:	2-position toggle switch permitting use with or without Equalizer
Dimensions:	61.0 cm (24.00 in.) high 38.1 cm (15.00 in.) wide 21.6 cm (8.50 in.) deep
Net Weight:	16.3 kg (36 lbs.)

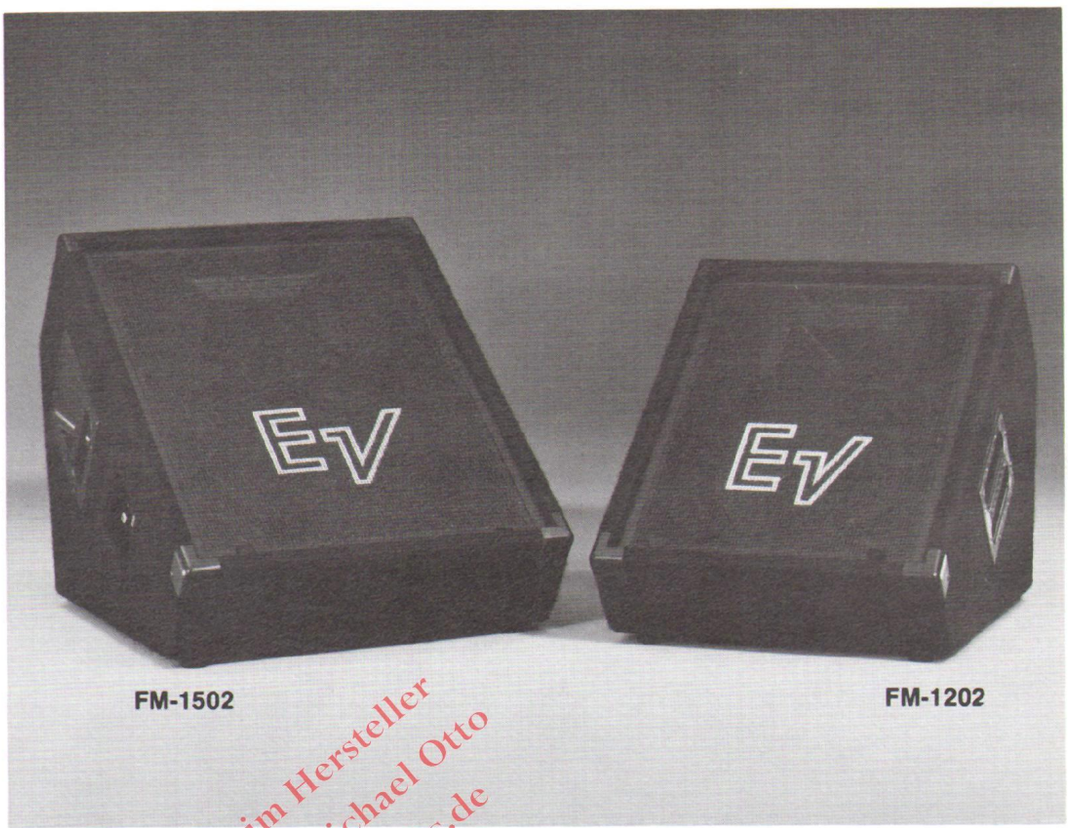
S-200



Compact Stage Monitor
High Level Stage Monitor

FM-1202
The FM-1202 Compact High-Level Floor Monitor, like the S-1202, is a time coherent constant-directivity, high efficiency system capable of handling 300 watts continuous power. As a monitor speaker, it has one primary purpose — to let you hear yourself clearly and articulately above the stage level of drums and amplified instruments. You hear every nuance and every syllable, when intonation is critical. The FM-1202 performs this task without rival. The high frequency section consists of a flat-mouth 90° x 40° die-cast horn coupled to the new pro-music titanium driver. Matched to an optimally-vented low frequency section driven by the EVM Pro-Line 12S, this highly efficient system is capable of producing average sound pressure levels in excess of 125 dB at one meter.

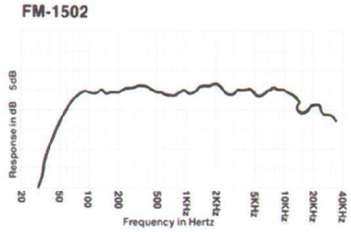
FM-1502
The FM-1502 High-Level Floor Monitor is the heavy duty model of the FM-1202. It features the same exciting high-frequency components as the FM-1202. Coupled through a specially designed crossover/equalizer network to the new proprietary, extended coil, 15" low-frequency speaker in an optimally-vented enclosure, the FM-1502 has a useable frequency response from 47 Hz to 23 kHz. It offers the ultimate in high-level, high-clarity, floor monitoring.



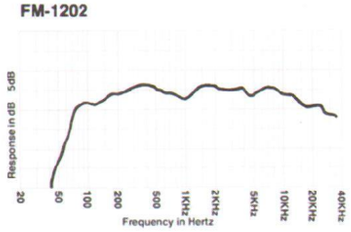
Specifications:	FM-1502	FM-1202
Frequency Response: (-3 dB points)	65 Hz-20 kHz	75 Hz-20 kHz
Usable Frequency Response: (-10 dB points)	47 Hz-23 kHz	60 Hz-23 kHz
Long-Term Continuous Power Handling*:	300 w	300 w
Short-Term Peak Power Handling*:	1200 w	1200 w
Nominal Impedance:	8 ohms	8 ohms
Sensitivity 1w, 1m: (3.3 ft.)	102 dB	101.5 dB
SPL @ Rated Long Term Power:	126 dB	125.5 dB
Nominal Dispersion:	90°x40°	90°x40°
Crossover Frequency:	1500 Hz	1500 Hz
Dimensions (Height x Width x Depth):	22.0" H 22.5" W 27.9" D	19.4" H 19.4" W 24.4" D
Net Weight:	75 lb.	65 lb.

*Per EIA 426A Power Test

FM-1502



FM-1202



Crossover/Equalizer Networks

The Electro-Voice XEQ Series crossover/equalizers are the heart of component sound reinforcement systems. The XEQ s are crossovers, performing frequency division functions, but, unlike traditional crossovers, the XEQ Series provides additional tailoring that precisely matches the performance of EV constant directivity horns to that of the low-frequency system. The result is uniform frequency response across the entire frequency range.

XEQ-804, XEQ-808

The XEQ-804 and XEQ-808 are Passive High-Level Networks 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 EV horn/driver combination to a 4-ohm, woofer system. 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-808 similarly matches 8-ohm high and low frequency speaker loads.

XEQ-2

The XEQ-2 is an Active, Low-Level Electronic Crossover/Equalizer for bi-amplification. Crossover and equalization frequencies and characteristics of the XEQ-2 are determined by convenient plug-in modules.

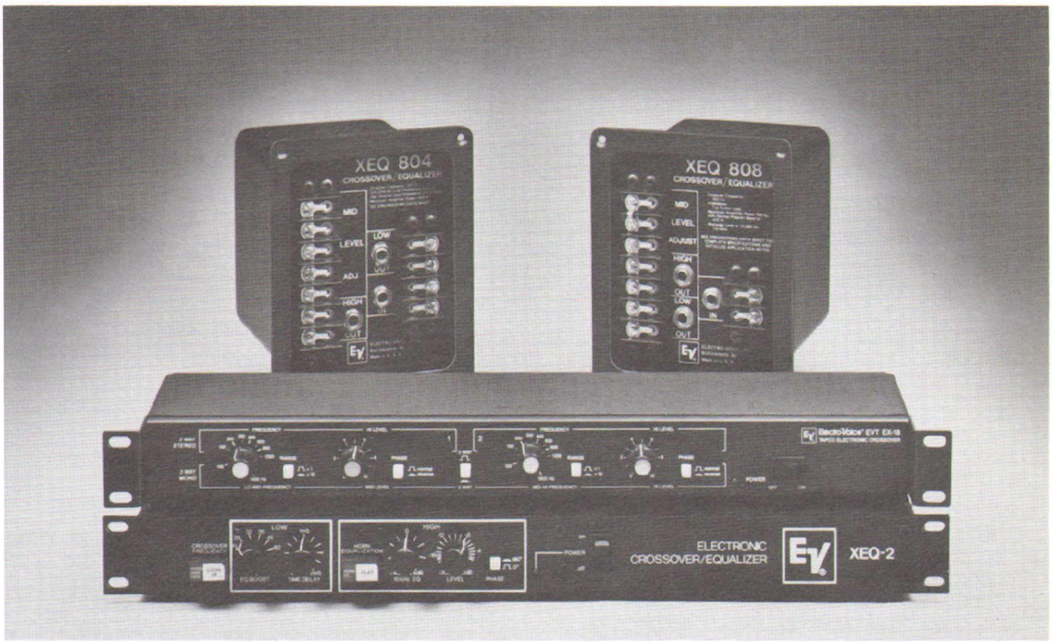
In addition to a traditional switch for reversing the polarity of the high-frequency output, the XEQ-2 features a unique variable time-delay circuit in the low-frequency output. At typical crossover frequencies, the delay can be varied between about 0 and 2 milliseconds. This permits precise smoothing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

EVT EX-18

The EVT EX-18 is a Low-Cost Dual Channel 2-Way, Single Channel 3-Way Electronic Crossover. Designed using maximally flat, 18 dB/octave filters, usually used in more expensive products, the EVT EX-18 delivers smooth response at the crossover point. The sharper slope minimizes out-of-band signals that might otherwise be delivered to the wrong drivers, thus reducing distortion and giving an added measure of protection.

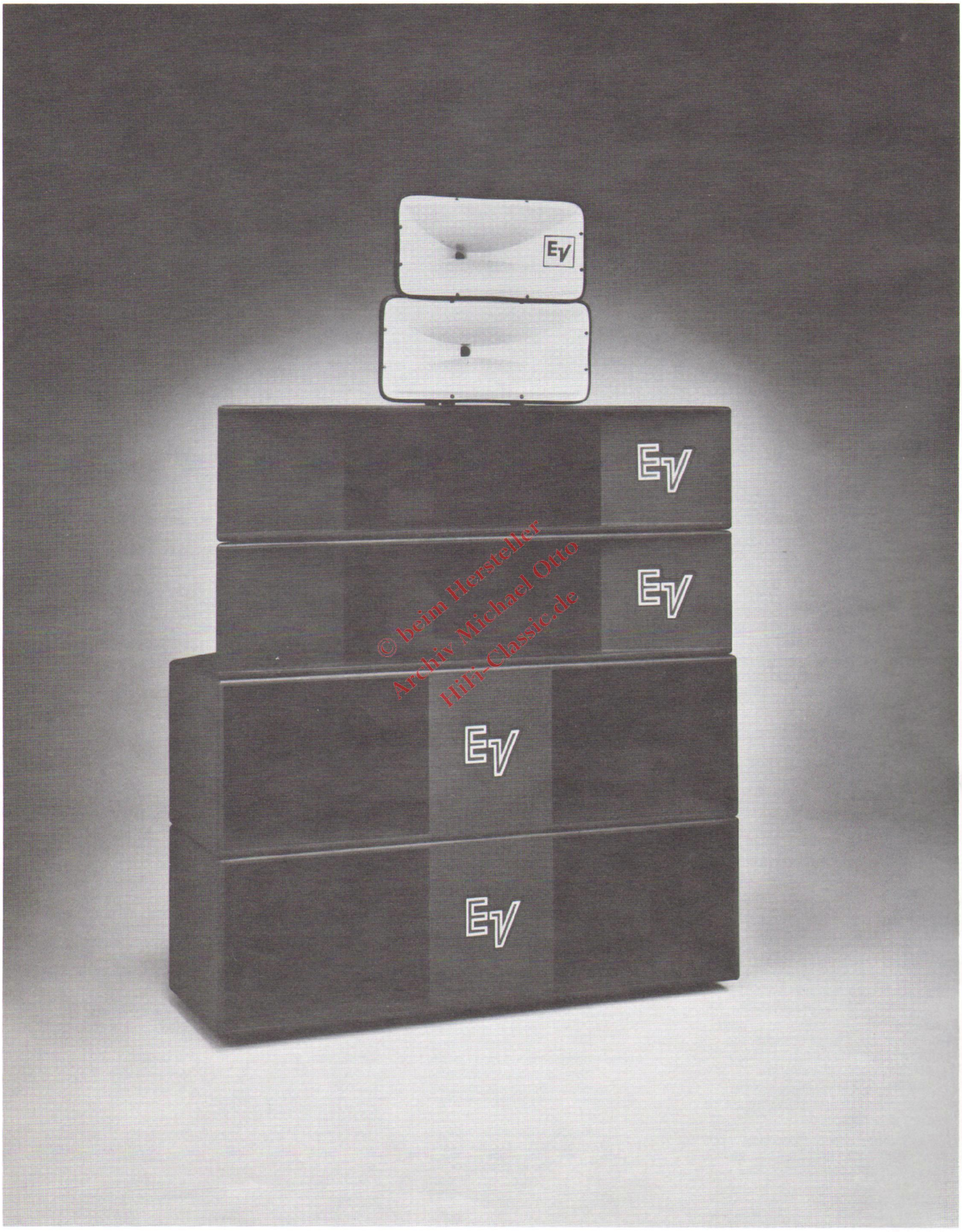
A unique mode switch allows easy conversion from 2-way to 3-way operation with no external patching required.

1. The XEQ-2 is supplied with the X500 (500 Hz), X800 (800 Hz), and BMK (blank module kit for construction of the crossover frequencies in the 100-8000-Hz range). The X125, X1500, X3500 and X7000 modules are also available.



Specifications	XEQ-804	XEQ-808
Channel Configuration:	Monaural	Monaural
Crossover Frequency:	800 Hz	800 Hz
Attenuation Rate Outside of Crossover Region:	12 dB per octave (low-pass output); 18 dB per octave (high-pass output)	12 dB per octave (low-pass output); 18 dB per octave (high-pass output)
Nominal Load Impedance—Low Channel/High Channel:	4 ohms/4-8 ohms	8 ohms/8 ohms
Equalization at 10,000 Hz:	Approximately 10 dB above 1000-Hz reference (varies slightly with high-frequency attenuation adjustment)	Approximately 12 dB above 1000-Hz reference (varies slightly with high-frequency attenuation adjustment)
High-Frequency Attenuation (1000 Hz):	9-16 dB, adjustable in six steps	9-16 dB, adjustable in five steps
Insertion Loss, Low-Frequency Channel:	.7 dB typical	.7 dB typical
Maximum Safe Amplifier Power Rating with Typical Program Material (max. voltage input not to be exceeded):	400 watts continuous sine wave	400 watts continuous sine wave
Long-Term Average Power Handling Capacity, Pink Noise Shaped per EIA Standard RS-426A:	100 watts	100 watts
Maximum Input Voltage:	±80 volts peak	±80 volts peak
Circuit Type—Frequency Division: High-Frequency Equalization and Attenuation:	Second-order L-C Adjustable series capacitance	Second-order L-C Adjustable series capacitance
Connections:	Screw terminals in parallel with ¼-in phone jacks	Screw terminals in parallel with ¼-in phone jacks
Overall Dimensions— H, W, D:	178 mm (7 in),140 mm (5.5 in), 164 mm (6.4 in)	178 mm (7 in), 140 mm (5.5 in), 164 mm (6.4 in)
Net Weight/Shipping Weight:	3.4 kg (7.6 lb)/3.7 kg (8.2 lb)	3.1 kg (6.9 lb)/3.4 kg (7.6 lb)

Specifications:	XEQ-2	EX-18
Channel Configuration:	Monaural	Stereo (2-way) Monaural (3-way)
Crossover Frequency Range:	100-8000 Hz (determined by module)	100-8000 Hz Continuously Variable
Attenuation Rate Outside of Crossover Region:	18 dB per octave	18 dB per octave
Frequency Response (sum of outputs, controls flat):	±0.5 dB; 30-20,000 Hz	±0.5 dB; 20-20,000 Hz
Noise Output (20-20,000 Hz bandwidth):	-90 dBV maximum (-88 dBm)	-90 dBV maximum (-88 dBm)
Maximum Output Level:	+18 dBV (+20 dBm)	+22 dBV (24 dBm)
Input Configuration:	Balanced or unbalanced, user selectable	Balanced or unbalanced, user selectable
Output Configuration:	Unbalanced; balanced and isolated with optional accessory TRB-1 transformer pair	Unbalanced
Input Impedance, Bridging—Unbalanced/Balanced:	15,000 ohms./30,000 ohms	15,000 ohms/30,000 ohms
Output Internal Impedance:	47 ohms	470 ohms
Minimum Load Impedance:	600 ohms	600 ohms
Continuously-Variable High-Frequency Equalization:	±4 dB at 10,000 Hz, Q =	Not Applicable
High-Frequency Channel Relative Phase:	Switchable, 0° or 180°	Switchable, 0° or 180°
Low-Frequency Equalization for "Step-Down" Operation of TL Vented Bass Speaker System	Second-order under-damped filter with switchable plus-6-dB peak boost frequencies of 29, 32, 35, 45, and 60 Hz, plus "flat" with a high-pass ⅓ of 30 Hz	Not applicable
Low-Frequency Channel Delay, Adjustable:	25 usec to 2 msec at 100 Hz	Not applicable
Total Harmonic and Intermodulation Distortion (controls flat)—Typical: Maximum at 20 kHz, +20 dBm:	.02% .1%	.05%, typical, maximum output
CMRR:	50-1KHz 55 db, typical	40 dB, Minimum
Connections:	3-pin professional connectors (female on input, male on output) in parallel with ¼-in phone jacks	¼-inch phone jack (tip-ring sleeve)
Overall Dimensions: H, W, D:	44 mm (1.7 in), 483 mm (19 in), 124 mm (4.9 in)	44 mm (1.75 in).483 mm (19 in), 127 mm (5 in)
Weight/Shipping Weight:	2.2 kg (4.7 lb)/2.7 kg (6 lb)	1.9 kg (4 lb)/2.7 kg (6 lb)



Concert Sound Reinforcement Systems

For many years working bands and sound companies have stacked speaker cabinets and horns in rather random arrays. Although this approach has gained more over-all sound pressure level (SPL), it also creates enormous problems. The lack of control over horn coverage angles and the multiplicity of horns created a system which basically functioned as a giant comb-filter. The resultant "hot spots" and "dead spots" made these systems anything but pleasing to listen to in the audience position. As a leader in the technology of controlled-directivity horn technology, EV has long recognized these problems and has introduced two high-efficiency, horn-loaded systems designed to solve the problems associated with multiple speaker system arrays when used in conjunction with constant-directivity higher frequency horns.

TL1225

TL1225 Horn-Loaded Mid-Bass Speaker System is designed to be used in ultra-high pressure level music reinforcement systems. The high-efficiency of the 60º horizontal constant-directivity horn geometry combined with the 300 watt continuous power capacity of the EVM Pro-Line 12S driver provides a one watt/one meter sensitivity of 109 dB with full power ratings generating levels in excess of 129 dB continuous. The TL1225 is designed to operate between 125 Hz and 1250 Hz.

TL4025

TL4025 Folded-Horn Bass Speaker System is a high efficiency cabinet designed to be used as a low-frequency component in ultra-high sound pressure level music systems. The high efficiency of this horn combined with the 400 watt continuous power capacity of the EVM Pro-Line 15L driver provides capability for levels exceeding 130 dB when used in pairs. It is recommended that the TL4025 be used in pairs since the unique geometry of this folded-horn system permits the use of hyperbolic-exponential taper rates to obtain maximum low-frequency output from the horn. Using two cabinets provides sufficient horn mouth area to take advantage of the 40 Hz cutoff possible with this horn design. The recommended crossover frequency when used with the TL1225 is 125 Hz (up to 250 Hz).

NEW CABINETS

Both the TL1225 and TL4025 are ruggedly built of 15-ply baltic birch. All joints are dado cut and the cabinet is finished with a specially formulated textured epoxy coating. Although the size and weight of these cabinets are substantial, they are fitted with the appropriate handles, handle holes and casters to make them surprisingly mobile.

RC60A, RC90A

The RC series of encased constant-directivity horns is the heart of the system. The RC horn design is patented 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 EV'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.

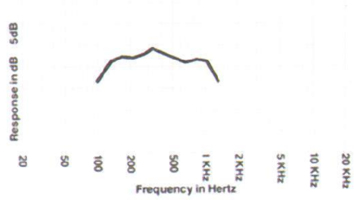
Specifications:	TL1225	TL4025
Type of Design:	Controlled Directivity Mid-Bass Horn	Folded Bass Horn
Frequency Response:	125-1250 HZ	40-500 HZ
Suggested Operating Range:	125-1250 HZ	40-125 HZ
Driver:	EVM 12S Pro-Line	EVM 15L Pro-Line
Power Handling*:	300 Watts	400 Watts
SPL: (1 Watt, 1 Meter)	109 DB	104 DB
SPL Full Power @ 4 Feet:	129 DB (300 Watts)	128 DB (400 Watts)
Weight:	110 lbs.	168 lbs.

*Per EIA 426A Power Handling Test

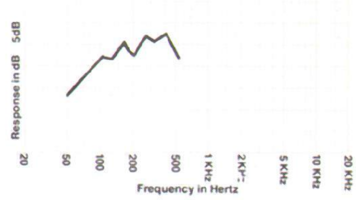
Specifications:	RC 60A	RC 90A
Type of Design:	Constant Directivity	Constant Directivity
Nominal Dispersion	60ºx40º	90ºx40º
Frequency Response:	500 Hz-20 KHz	500 Hz-20 KHz
Suggested Operating Range:	800 Hz up	800 Hz up
Driver:	DH-1506	DH-1506
Power Handling*:	30 Watts	30 Watts
SPL: (1 Watt, 1 Meter)	113 dB	111 dB
SPL Full Power @ 4 Feet:	126 dB (30 Watts)	124 dB (30 Watts)
Weight:	40 lbs.	40 lbs.

*Per EIA 426A Power Handling Test

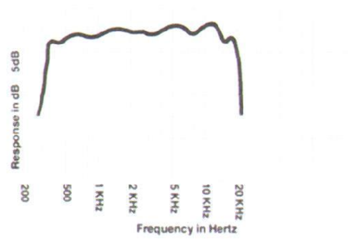
TL 1225



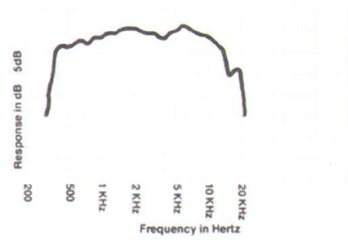
TL 4025



RC 60A



RC 90A



EVM™ Pro-Line Speakers

Electro-Voice EVM Pro-Line loudspeakers are the newest generation of maximum-efficiency, low-frequency loudspeakers. Years of experience, testing and design refinement have resulted in a series of loudspeakers that offers high efficiency and amazing power-handling capacity never before available.

EVM loudspeakers are designed for professional high-level, high-performance sound reinforcement systems. Pro-Line speakers incorporate voice-coil refinements that include insulated beryllium copper flatwire leads, high-temperature solder and adhesives, and laminated polyimide coil forms. These refinements, combined with proprietary production technologies, including the use of PROTEF™ have advanced the art of high-performance speaker manufacturing boldly forward.

PROTEF is a Teflon-based coating applied to the inside diameter of the magnetic structure's top plate, adjacent to the voice coil. Occasionally, violent power peaks of several seconds in duration will expand a normal driver's coil into contact with the top plate, damaging the coil.

PROTEF provides protection by lubricating any rubbing contact and inserting electrical insulation between the coil and the top plate.

Additional EVM construction features include low-mass (aluminum) edgewound flat-wire voice coils which add about 20% to speaker efficiency relative to the more common and easily manufactured round-wire construction. The Pro-Line loudspeaker assemblies are driven by our largest 16-pound magnetic structure.

Also featured are heavy-duty curvilinear cones and fatigue-resistant cone suspensions. Both the coil and the magnetic structure are vented to maximize heat dissipation in the voice coil area. All of this is packaged in a rugged eight-spoke die-cast aluminum frame to assure outstanding performance under even the most demanding of professional applications.

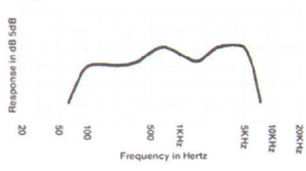
The result is a loudspeaker that combines incredibly high power-handling capability, efficiency and mechanical durability. The 15-inch and 18-inch EVM Pro-Line speakers are rated at 400 watts continuous per EIA Standard RS-426A. This eight-hour test is substantially more stringent than the more common continuous or "RMS" sine-wave test, because it provides not only a 400-watt long-term stress (heat) but also replicates the mechanically demanding short-duration program peaks of up to 1600 watts which can destroy speaker cones and suspension parts. The 12-inch EVM Pro-Line speakers are rated at 300 watts continuous with 1200 watt program peaks under the same exhausting test conditions. Professionals throughout the world have come to trust Electro-Voice EVMs as reliable tools of the trade.

Specifications:	EVM-12L Pro-Line	EVM-12S Pro-Line	EVM-15L Pro-Line
Frequency Response:	800-700 Hz*	80-7000 Hz*	60-6000 Hz*
Sound Pressure Level:	123.0 dB (at 4',300 watts in)	124.0 dB (at 4',300 watts in)	127.0 dB (at 4',400 watts in)
Power Handling Capacity (Per EIA Standard RS-426A) Long Term:	300 watts	300 watts	400 watts
Instantaneous Peak:	1200 watts	1200 watts	1600 watts
Nominal Impedance:	8 ohms	8 ohms	8 ohms
Voice Coil Diameter:	2½ in.	2½ in.	2½ in.
Magnet Structure Weight:	16 lbs.	16 lbs.	16 lbs.
Dimensions:	12¼" diam. x 6" deep	12¼" diam. x 5½"deep	15" diam. x 7" deep
Weight:	19 lbs.	19 lbs.	21 lbs.

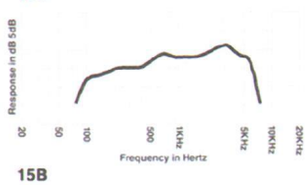
Specifications:	EVM-15B Pro-Line	EVM-18B Pro-Line
Frequency Response:	60-3500 Hz*	50-5000 Hz*
Sound Pressure Level:	126.5 dB (at 4',400 watts in)	124.5 dB (at 4',400 watts in)
Power Handling Capacity (Per EIA Standard RS-426A) Long Term:	400 watts	400 watts
Instantaneous peak:	1600 watts	1600 watts
Nominal Impedance:	8 ohms	8 ohms
Voice Coil Diameter:	2½ in.	2½ in.
Magnet Structure Weight:	16 lbs.	16 lbs.
Dimensions:	15" diam. x 7" deep	18" diam. x 8" deep
Weight:	21 lbs.	22 lbs.

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

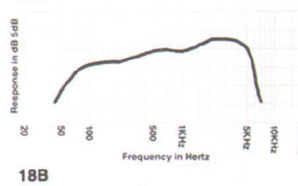
12L



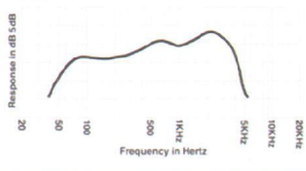
12S



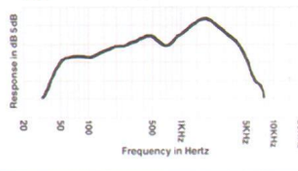
15L



15B



18B



EVM™ Series II Speakers

Electro-Voice EVM Series II is, simply put, the "Industry Standard" premium musical instrument replacement loudspeaker. Delivering the sound musicians and soundmen want, and the reliability professionals depend on for night-after-night performance, is why EVM's are factory-supplied options by many of the world's best manufacturers of premier enclosures.

Modern manufacturing technologies, coupled with years of experience assure that all EV loudspeakers are consistent from unit to unit. The finest materials and assembly methods will assure a long life.

The cast aluminum frame offers engineering advantages over conventional stamped frame designs. The high rigidity and light weight assure a proper connection of the massive 16 pound magnet to its mounting, and being non-magnetic, the aluminum is not subject to magnetic flux "leakage" to the frame, again a problem with stamped frame designs. Lastly, the aluminum frame assures better heat dissipation from the magnet structure acting as both a conductive and natural convection heat sink.

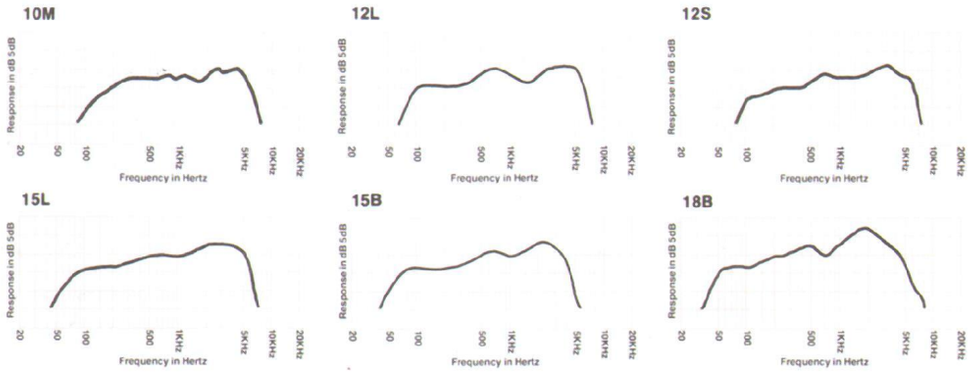
The high-accuracy, edge-wound, flat-wire voice coil offers high sensitivity and adds about 20% to speaker efficiency relative to the more common and easily manufactured round-wire construction. This means more sound out from fewer watts in.

The highest quality curvilinear cones and fatigue-resistant cone suspensions are used and both the voice coil and the magnetic structure are vented to again assure maximum heat dissipation.

EVM Series II speakers offer six specialized designs backed by a five year warranty and fast factory service support and are all rated at 200 watts continuous/800 watt peak, "Real World" power handling capacity per the stringent EIA 426A power test.

Specifications:	EVM-10M Series II	EVM-12L Series II	EVM-12S Series II
Frequency Response:	120-6,500 Hz*	80-700 Hz*	80-7000 Hz*
Sound Pressure Level:	120 dB (at 4',200 watts in)	121.5 dB (at 4',200 watts in)	122.5 dB (at 4',200 watts in)
Power Handling Capacity (Per EIA Standard Rs-426A) Long Term:	200 watts	200 watts	200 watts
Instantaneous Peak:	800 watts	800 watts	800 watts
Nominal Impedance:	8 ohms	8 ohms	8 ohms
Voice Coil Diameter:	2½ in.	2½ in.	2½ in.
Magnet Structure Weight:	16 lbs.	16 lbs.	16 lbs.
Dimensions:	10¼ in. diam. x 4⅞ in. deep	12¼ in. diam. x 5½ in. deep	12¼ in. diam. x 5 in. deep
Weight:	18 lbs.	18 lbs.	18 lbs.

Specifications:	EVM-15L Series II	EVM-15B Series II	EVM-18B Series II
Frequency Response:	60-6000 Hz*	60-3500 Hz*	50-5000 Hz*
Sound Pressure Level:	124.5 dB (at 4',200 watts in)	124.5 dB (at 4',200 watts in)	122 dB (at 4',200 watts in)
Power Handling Capacity (Per EIA Standard RS-426A) Long Term:	200 watts	200 watts	200 watts
Instantaneous Peak:	800 watts	800 watts	800 watts
Nominal Impedance:	8 ohms	8 ohms	8 ohms
Voice Coil Diameter:	2½ in.	2½ in.	2½ in.
Magnet Structure Weight:	16 lbs.	16 lbs.	16 lbs.
Dimensions:	15 in. diam. x 6½ in. deep	15 in. diam. x 6½ in. deep	18 in. diam. x 7½ in. deep
Weight:	20 lbs.	20 lbs.	21 lbs.



Force™ Speakers

Force™ musical instrument loudspeakers offer everything you're looking for in a replacement loudspeaker. Rugged diecast frames, heavy-duty motor parts and a massive magnet assembly combine to offer you superb performance.

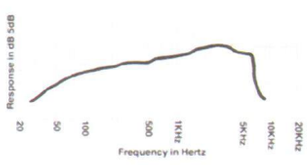
Performance can be summed up in two words—sound and power-handling capability. Force gives you both. The sound you want is there. It's the sound that will have your instrument cutting through with the authority you thought you could only get with a premium-priced speaker. And with Force's 150 watt (real-life rated) long-term power-handling capability, you're not going to be blowing out speakers every time you need to punch in a little more volume.

Force is the professional speaker you've been looking for. Yet Force costs only slightly more than you'd expect to pay for a common stamped-frame loudspeaker.

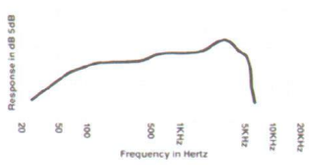
Force speakers are available in 10", 12" and 15" models so you can load them into just about every existing or custom cabinet.

Specifications:	Force 10	Force 12	Force 15
Frequency Response:	75-7,000 Hz	60-7,000 Hz	45-6,000 Hz
Sound Pressure Level:	118 dB (at 4', 150 watts in)	119 dB (at 4', 150 watts in)	120 dB (at 4', 150 watts in)
Long-Term Power Handling Capacity:	150 watts (per EIA Standard RS-426A)	150 watts (per EIA Standard Rs-426A)	150 watts (per EIA Standard RS-426A)
Nominal Impedance:	8 ohms	8 ohms	8 ohms
Voice Coil Diameter:	63.5 mm (2.5 in.)	63.5 mm (2.5 in.)	63.5 mm (2.5 in.)
Magnet Assembly Weight:	4.54 kg (10 lbs.)	4.54 kg (10 lbs.)	4.54 kg (10 lbs.)
Frame:	Diecast aluminum	Diecast aluminum	Diecast aluminum
Dimensions:			
Overall Diameter:	259 mm (10.2 in.)	310 mm (12.2 in.)	384 mm (15.1 in.)
Overall Depth:	122 mm (4.8 in.)	130 mm (5.1 in.)	163 mm (6.4 in.)
Weight:	5.44 kg (12 lbs.)	5.8 kg (12.8 lbs.)	5.8 kg (12.8 lbs.)

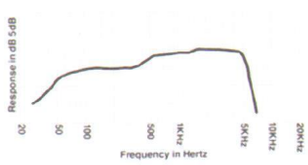
Force 10



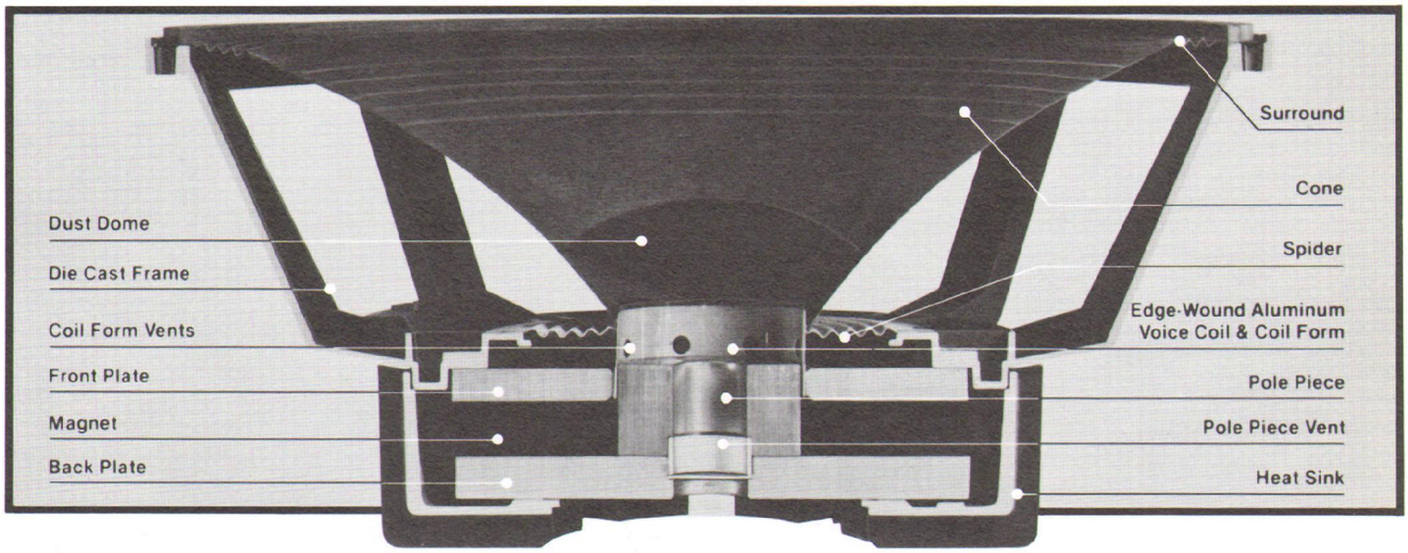
Force 12



Force 15



Basics You Should Know About High-Output Loudspeaker Design



Many of the key features which contribute to EVM reliability are described in the preceding pages. Additionally, there are several key design decisions which have to be faced by all loudspeaker manufacturers. Electro-Voice has adopted, or decided not to adopt, several design techniques which, for some people, play an important role in their loudspeaker purchase decision.

Voice Coil Diameter

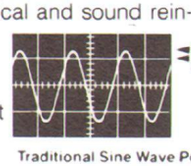
In the 1940's a design technique was developed for manufacturing a 2.5-inch voice coil around the large 4-inch Alnico magnets of the time. By placing a piece of reducing metal atop the magnet, it was possible to employ a voice coil smaller than that of the magnet diameter. Because a 2.5-inch voice coil diameter was more than sufficient to carry the flux of large magnets, Electro-Voice adopted this design approach.

What about today? Now virtually all speakers use ferrite (ceramic) magnets whose shapes can accommodate both large and small voice coils with equal ease. Thus, when ferrite magnets are employed, a manufacturer's decision to stay with larger voice coils results more from internal manufacturing considerations — parts interchange-ability, retooling, production experience — than anything else. Nonetheless, a large voice coil diameter is often offered as proof of inherently better speaker performance even though the facts indicate otherwise. The EVM's universal reputation for reliability and performance is the real proof you need.

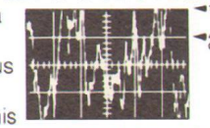
A corollary to the basic large vs. small coil issue is the subject of heat transfer and coil surface area. In specific side-by-side comparisons, EVMs exhibit a coil surface area essentially identical to that of large diameter voice coils. The reason is that the greater length of an EVM voice coil more than counteracts the difference in diameters. This results in heat transfer abilities identical to, if not superior to, other designs.

Power Handling Capability

Electro-Voice has adopted EIA Standard RS-426A as a method to test speaker power handling capabilities. Other testing methods, continuous sine "RMS" watts being one example, might give higher power ratings. However, these other methods do not replicate "real world" musical and sound reinforcement requirements. The EIA test requires that a specific test noise spectrum be applied to a speaker for eight hours rather than the one hour usually employed in sine wave tests. Also, the EIA spectrum more closely resembles actual program material, by requiring that the speaker being tested be able to endure instantaneous peaks a full four times above continuous power. In the case of EVMs this means peaks of 1600 watts. By substantially exceeding the 3-dB-above-continuous peaks of sine wave testing, EIA standard gives a rigorous test of not only thermal but also mechanical failure modes.



Traditional Sine Wave Power Test

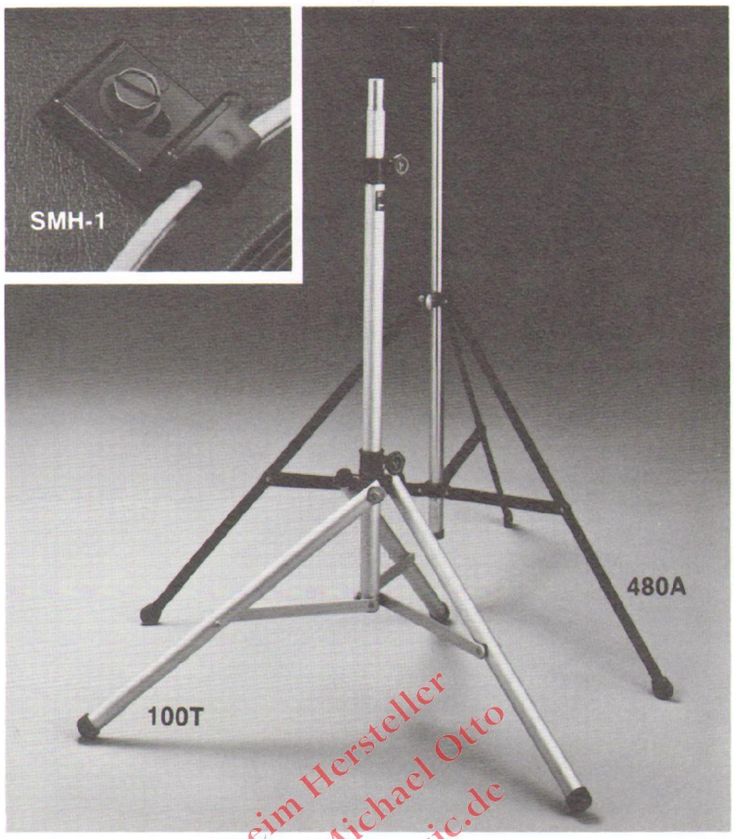


EV's Real World Noise Power Test

Additionally, Electro-Voice has chosen not to employ special pole-piece geometries in their EVM magnet assemblies. For instance, while testing undercut pole pieces, voice coils experienced significant rises in operating temperature due to the reduced head transfer characteristics of the undercut design. EV engineers were unwilling to accept this potentially serious compromise in long-term speaker reliability.

When specifying EVMs you can depend on the EVM design and its world wide reputation for reliability and sonic excellence.

Accessories



100T Stand
The **Model 100T** lightweight tripod stand is designed to support many of the EV stage systems. It offers the "ultimate" in a stable, rugged speaker stand, yet it only weighs 8 lbs. Ideal for models S-1202, S-200 and SH-1502, this stand supports up to 75 lbs.

480A Stand
The **Model 480A** tripod stand will support the models S-1202, S-200, SH-1502, and S-1503. 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.

SMK-1 Speaker Mounting Kit
(not shown) includes stand adaptor and all needed hardware for mounting SH-1502, or S-1503 on 100T or 480A stands.

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.

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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Form 2354