



# The EX Active Speaker Series





## Introduction

At KV2 Audio building an active speaker goes beyond simply bolting a Class D amplifier to the back of a box. The EX range has evolved over the last decade and represents the pinnacle of small to medium format active Loudspeaker technology in the world today. The market has been flooded with active speakers since their popularity flourished in the late nineties. KV2's founder, George Krampera, was a pioneer in this field with the development of the original ART series at RCF. George soon realized the secret to active loudspeaker design was developing electronics and amplifiers that are perfectly matched to the transducers they power, optimizing their performance in every way. The EX Series encompasses these principles delivering unprecedented audio quality and output that defies their size.

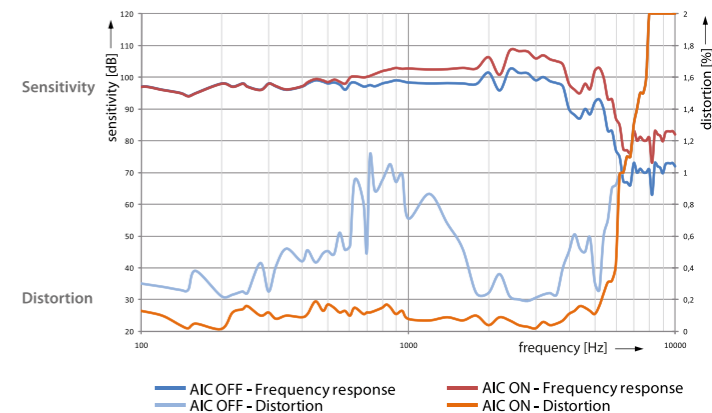
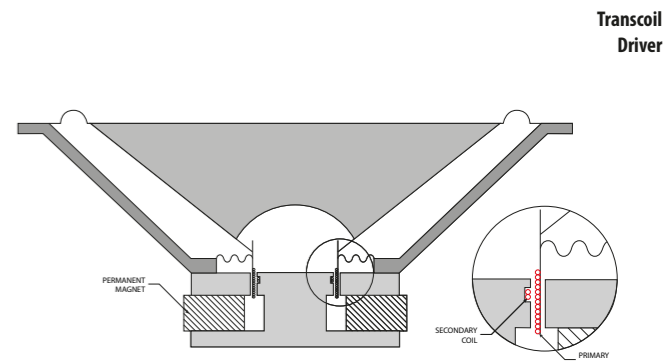


## Unique Electronics

The EX range is the result of KV2's holistic approach to matching electronics and speakers. Our engineers have developed unique electronic technologies that perfect this process. For instance **KV2 is the only company in the world utilizing Trans-Coil technology**, which virtually eliminates voice coil inductance, resulting in a flat impedance response.

This proprietary technology utilizes a secondary stationary coil, which whilst reducing the inductance to almost zero, dramatically improves pulse response.

Good pulse response is imperative in achieving audio clarity and stereo imaging, while inductance is the main reason for odd harmonic distortion. Odd harmonic distortion is far more audible than even order harmonic distortion, playing a critical part in the overall listening experience. To the right is a diagram that shows the effects of this technology; we call it **Active Impedance Control**.



Transcoil Driver



## Special Components

EX speakers feature nitride titanium compression drivers used exclusively by KV2. They are treated with a process that diffuses nitrogen into the surface of the diaphragm, changing the molecular structure of the titanium. This removes resonances in the operating frequency range resulting in HF drivers with the lowest distortion in their class, delivering smooth extended high frequency. With such low distortion in the driver, the quality of the electronics driving the speaker becomes far more audible. Poor impulse response, created by badly designed amplifiers and the utilization of digital signal processing (DSP) on many of today's systems, is often masked by distortion in the HF driver. Driving components with such low distortion requires electronics of the highest integrity. All aspects of the EX Series circuit are designed to maintain accurate impulse response and pristine audio quality.

## Classic Amplifiers

The precisely selected amplifier topologies in the EX range have been designed to deliver both power and the best possible audio reproduction. Classic class A/B designs are used on all high frequency components. Low frequency components utilize our high current switching amplifiers that **operate at efficiencies of over 90 % for optimal control of the speaker**. A special circuit on the amplifier output lowers non-harmonic distortion and dramatically reduces intermodulation. All amplifiers incorporate high quality transformers that deliver real power over longer periods for audio impact, dynamics and clarity, far superior to D Class designs. On-board analogue signal processing provides equalization, phase adjustment, crossover filters, thermal and overdrive protection. These amplifiers and electronics deliver far smoother, more musical audio reproduction.



## EX6

The EX6 Active Speaker delivers a lot from a compact, robust and extremely portable package. This 2-way full range solution defies its size when it comes to output and performance. With amazing clarity for speech and musical reproduction the EX6 is perfect for discreet installations or audiovisual presentations where sound quality is paramount but size also matters.

## EX26

The EX26 is an outstanding speaker engineered for multiple applications. This unique cabinet provides superb vocal intelligibility and high quality musical reproduction. Its 100 x 100 degree horn provides wide, even dispersion making it ideal for theatres, audiovisual presentations, Houses of Worship, meeting rooms and various other applications where high quality speech reproduction is required. The EX26 can also be mounted horizontally and is ideal as an under balcony fill speaker in this configuration.

## EX10

The EX10 is a compact 2-way, high-output, full-range active speaker. Despite its 10" woofer and remarkably small footprint it successfully takes on many larger 12" models and is favored by audiovisual and rental companies all over the world for its sheer quality and tremendous output. On-board electronics ensure fast, easy set up and complete control. Everyday the EX10 continues to astound people who simply cannot believe the quality and output of this compact system.



	<b>EX6</b>	<b>EX26</b>	<b>EX10</b>	
<b>System Acoustic Performance</b>	Max SPL Long-term	117dB	126dB	
	Max SPL Peak	120dB	129dB	
	-3dB Response	68Hz to 20kHz	80Hz to 20kHz	65Hz to 20kHz
	-10dB Response	62Hz to 28kHz	65Hz to 28kHz	55Hz to 28kHz
	Crossover Point	2.0kHz	2.5kHz	1.6kHz



## EX12

The EX12 has become well regarded over the last decade as one of the best sounding two-way 12" and horn speakers on the planet. Over 20,000 units are now in operation around the globe. The EX12 builds on the success of the EX6 and EX10 by implementing KV2's revolutionary 3" NVPD large format compression driver found in our flagship ESR, SL and VHD ranges of products. This makes for one of the most perfectly balanced and accurate, compact, 2-way active boxes available on the market today. All filtering, phase alignment, equalization and speaker protection are integrated into the EX12's state of the art amplifier module.

## New EX15

The new EX15 incorporates a unique coaxial 15" transducer with a 1.75" Nitride Titanium Compression Driver on a wide dispersion horn. While most coaxial speakers will cover the expected full frequency response, the EX15's coaxial driver only covers low and high frequencies, leaving the all important mid range register to a 6" neodymium speaker mounted on a large 80 x 60 degree horn. This allows the 15" driver to deliver accurate and deep bass, rather than trying to reproduce the all important mid range - a common problem with conventional coaxial designs. The EX15's unique design provides extremely natural full range sound from a compact yet powerful package, that out performs many speakers twice its size.



	EX12	EX15
<b>System</b>	Max SPL Long-term	127dB
	Max SPL Peak	130dB
<b>Acoustic Performance</b>	-3dB Response	55Hz to 22kHz
	-10dB Response	45Hz to 30kHz
	Crossover Point	1.1kHz
		129dB
		132dB
		44Hz to 18kHz
		38Hz to 22kHz
		500Hz, 2,7kHz

## New EX1.2MkII

The EX1.2MkII is a small single 12" active subwoofer system. Employing passive cooling the EX1.2MkII boasts output that belies its compact, low profile cabinet size, as with all KV2 Audio products. The enclosure dimensions makes it ideal for discreet installations, as it can be installed either horizontally or vertically under seating and in furniture surrounds. Featuring KV2 Audio's switching amplifier technology, the EX1.2MkII delivers tight, fast and controlled bass response at very high output levels from an impressively conservative cabinet footprint.

## New EX1.5

The EX1.5 is a compact active subwoofer system featuring a single 15" neodymium woofer and a 500-watt high efficiency power amplifier. Offering a peak SPL in excess of 130dB, the EX1.5 produces considerable output, yet in true KV2 style retains a small footprint. A great all round subwoofer that will compliment any speaker system with tight and dynamic bass. Designed to be both robust and easily transported, the EX1.5 sets the standard in active single 15" subwoofers.

## EX2.2

If you need extreme bass output from a compact subwoofer the EX2.2 delivers just that. This double 12" active subwoofer system is driven by a highly efficient 1000-watt KV2 switching amplifier. On-board electronics include a stereo crossover and full overdrive protection. Featuring a high efficiency twin chamber acoustic design the EX2.2 delivers tight, fast and controlled bass response at very high output levels from a small cabinet footprint.



		EX1.2MkII	EX1.5	EX2.2
<b>System Acoustic Performance</b>	Max SPL Long-term	124dB	127dB	130dB
	Max SPL Peak	127dB	130dB	133dB
	-3dB Response	38Hz to 120Hz	38Hz to 120Hz	45Hz to 125Hz
	-10dB Response	32Hz to 120Hz	32Hz to 120Hz	40Hz to 125Hz
	Crossover Point	120Hz	120Hz	125Hz

## EX1.8

When you need deep, tight, low extended bass the EX1.8 is the perfect choice. Utilizing a high output single 18" VHD technology neodymium woofer the EX1.8's frequency response extends below 30Hz. The onboard amplifier delivers an impressive 1000-watts of power courtesy of KV2 Audio's switching amplifier technology. Also featuring stereo crossovers and full overdrive protection the EX1.8 provides a firm foundation on which to build a powerful EX system or as a stand-alone subwoofer for any existing system. On board stereo crossovers .

## EX2.5MkII

EX2.5MkII is a double 15" subwoofer and the 'active' brother of the ES2.6 passive bass module. It provides real depth and power where high bass output is required. The EX2.5MkII uses the same 1600-watt low frequency amplifier found inside our high power EPAK 2500 ES System amplification and control unit and features in-built stereo crossovers, high pass outputs and full overdrive protection. It also features a speaker level output on an AP4 connector to drive one additional passive ES2.6 subwoofer from its own internal amplifier.



	<b>EX1.8</b>	<b>EX2.5MkII</b>
<b>System Acoustic Performance</b>	Max SPL Long-term	131dB
	Max SPL Peak	134dB
	-3dB Response	30Hz to 125Hz
	-10dB Response	27Hz to 125Hz
	Crossover Point	125Hz
		125Hz

	<b>EK6</b>	<b>EK26</b>	<b>EK10</b>	<b>EK12</b>	<b>EK15</b>
<b>System Acoustic Performance</b>	Max SPL Long-term	117dB	124dB	126dB	129dB
	Max SPL Peak	120dB	127dB	129dB	132dB
	-3dB Response	68Hz to 20kHz	80Hz to 20kHz	65Hz to 20kHz	55Hz to 22kHz
	-10dB Response	62Hz to 28kHz	65Hz to 28kHz	55Hz to 28kHz	45Hz to 30kHz
	Crossover Point	2.0kHz	2.5kHz	1.6kHz	1.1kHz
	Acoustic Design	Horn Loaded	Horn Loaded	Horn Loaded	Horn Loaded
<b>High Frequency Section</b>	High Horn Coverage Horizontal / Vertical	100° x 100°	100° x 100°	100° x 80°	80° x 60°
	Throat Exit Diameter / Diaphragm Size	1" / 1.75"	1" / 1.75"	1" / 1.75"	1.4" / 3"
	Diaphragm Material	Nitride Titanium	Nitride Titanium	Nitride Titanium	Nitride Titanium
	Magnet Type	Neodymium	Neodymium	Neodymium	Neodymium
	Protection	RMS Limiter	RMS Limiter	RMS Limiter	RMS Limiter
	Type	Class AB Push-Pull	Class AB Push-Pull	Class AB Push-Pull	Class AB Push-Pull
<b>High Frequency Amplifier Section</b>	Rated Continuous Power	20W	20W	50W	50W
	Distortion	<0.05%	<0.05%	<0.05%	<0.05%
	Operating Bandwidth	2.0kHz to 28kHz	2.5kHz to 28kHz	1.6kHz to 28kHz	1.1kHz to 30kHz
	Acoustic Design	-	-	-	-
	Mid Horn Coverage Horizontal / Vertical	-	-	-	80° x 60°
	Woofer Size / Voice Coil Diameter / Design	-	-	-	6" / 1.5"
<b>Mid Range Section</b>	Diaphragm Material	-	-	-	Epoxy Reinforced Cellulose
	Magnet Type	-	-	-	Neodymium
	Protection	-	-	-	RMS Limiter
	Acoustic Design	Front Loaded, Bass Reflex	Front Loaded, Bass Reflex	Front Loaded, Bass Reflex	Front Loaded, Bass Reflex
	Woofer Size / Voice Coil Diameter / Design	6" / 1.75" / Trans Coil	6" / 1.75"	10" / 2.5" / Trans Coil	12" / 2.5" / Trans Coil
	Diaphragm Material	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose
<b>Low Frequency Section</b>	Magnet Type	Neodymium	Neodymium	Neodymium	Neodymium
	Protection	RMS Limiter	RMS Limiter	RMS Limiter	RMS Limiter
	Type	High efficiency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode
	Rated Continuous Power	180W	350W	450W	450W
	Distortion	<0.05%	<0.05%	<0.05%	<0.05%
	Operating Bandwidth	62Hz to 2.0kHz	68Hz to 2.5kHz	55Hz to 1.6kHz	45Hz to 1.1kHz
<b>Signal input</b>	Input Sensitivity	1V RMS	1V RMS	0.775V RMS	1V RMS
	Input Impedance	20 kΩ	20 kΩ	20 kΩ	20 kΩ
	Cabinet Material	Baltic birch	Baltic birch	Baltic birch	Baltic birch
	Handles	1	1	2	3
	Pole Mount	Optional - Stand Adapter EK6	35 mm	35 mm	35 mm
	Color	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL
<b>Physical Dimensions</b>	Height	395 mm (15.55")	570 mm (22.44")	514 mm (20.23")	596 mm (23.46")
	Width	220 mm (8.66")	220 mm (8.66")	310 mm (12.20")	368 mm (14.49")
	Depth	274 mm (10.78")	274 mm (10.78")	326 mm (12.83")	368 mm (14.49")
	Weight	12 kg (26.4lbs)	16 kg (35.2lbs)	22 kg (48.4lbs)	29 kg (63.8lbs)
					43 kg (94.8lbs)

	<b>EK1.2MkII</b>	<b>EK1.5</b>	<b>EK1.8</b>	<b>EK2.2</b>	<b>EK2.5MkII</b>
<b>System Acoustic Performance</b>	Max SPL Long-term	127dB	124dB	131dB	130dB
	Max SPL Peak	127dB	130dB	134dB	133dB
	-3dB Response	38Hz to 120Hz	38Hz to 120Hz	30Hz to 125Hz	45Hz to 125Hz
	-10dB Response	32Hz to 120Hz	32Hz to 120Hz	27Hz to 125Hz	40Hz to 125Hz
	Crossover Point	120Hz	120Hz	125Hz	125Hz
	Acoustic Design	Front Loaded, Bass Reflex	Front Loaded, Bass Reflex	Asymmetrical Bandpass	Twin Asymmetrical loading
<b>Low Frequency Section</b>	Woofer Size / Voice Coil Diameter / Design	12" / 3" / Inside outside	15" / 3" / Inside outside	18" / 4" / Inside outside	12" / 3" / Inside outside
	Diaphragm Material	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose	Epoxy Reinforced Cellulose
	Magnet Type	Neodymium	Neodymium	Neodymium	Neodymium
	Protection	RMS Limiter	RMS Limiter	RMS Limiter	RMS Limiter
	Type	High efficiency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode	High efficiency, Low frequency, Current-enhancing switch mode	High efficiency, Current-enhancing switch mode
	Rated Continuous Power	500W	500W	1000W	1000W
<b>Low Frequency Amplifier Specification</b>	Distortion	<0.05%	<0.05%	<0.05%	<0.05%
	Input Sensitivity	1.0V RMS	1.0V RMS	1.0V RMS	1.0V RMS
	Input Impedance	20kΩ (balanced)	20kΩ (balanced)	20 kΩ	20 kΩ
	Cabinet Material	Baltic birch	Baltic birch	Baltic birch	Baltic birch
	Handles	2	2	2	2
	Pole Mount	M20	M20	M20	M20
<b>Cabinet</b>	Color	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL	"Orange peeled" Matt Black or any RAL
	Height	370 mm (14.57")	510 mm (20.08")	612 mm (24.1")	491 mm (19.33")
	Width	800 mm (31.49")	550 mm (21.65")	700 mm (27.56")	594 mm (23.38")
	Depth	400 mm (15.75")	570 mm (22.44")	750 mm (29.5")	616 mm (24.25")
	Weight	32 kg (70.5lbs)	43kg (94.8 lbs)	65 kg (143.3lbs)	49 kg (107.8lbs)
					97 kg (214lbs)

# Technical Specifications



**The Future  
of Sound.  
Made  
Perfectly  
Clear.**



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