

CLA-K Series

Professional Line Array Speaker System



CLA-8K Dual 8" 2Way Bi-amp Line Array Speaker **CLA-18SK** 18" Line Array Subwoofer
CLA-5K Dual 5" 2Way Bi-amp Compact Line Array Speaker **CLA-15SK** 15" Line Array Compact Subwoofer

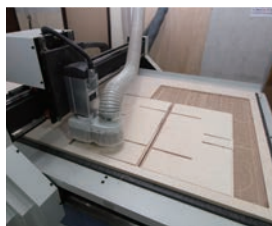
interM

Technology of Inter-M

STANDARD Inter-M is the first company among the speaker system manufactures in domestic market to get the certification of KS. This certification is applied to the factory of the speaker system manufacturer so whole speaker line which is produced in Inter-M is included in the range of KS certification.

Under this standard, every speaker that is manufactured by Inter-M can guarantee to satisfy the quantity and durability of the standard of KS/IEC.

FACTORY The high quality materials are used so it can be guaranteed the outstanding quantity of this model. Also, it is possible to supply the product that has different design with other manufactures and to install depend on demand of customer through the design team of Inter-M. Speaker which was made of wood by CNC of a precision instrument can be expected higher quality. Such as post processing and painting accomplish by the one- stop system and whole process is carried by ourselves, therefore we can supply to supplementation of painting.



- ◀◀ Assembly
- ◀ CNC Processing

R&D R&D for quality competition with other manufactures: The standard measuring instrument of B&K/CLIO/LMS/MLSSA is applied for the development of precision products. The important date which is used for manual and data sheet is measured at an anechoic room and we keep the original data by Data Base.

QC It can be received the 'pass' when the product pass the five types of test such as frequency response, buzz column, harmonics and so on successfully. These test is automatically operated so it is possible to supply the date to internal server and can be traced the history of mess production and quality.

Why the line array is installed

1. Control of vertical pointing angle

The long line array can be reduced the vertical pointing angle until low frequency.

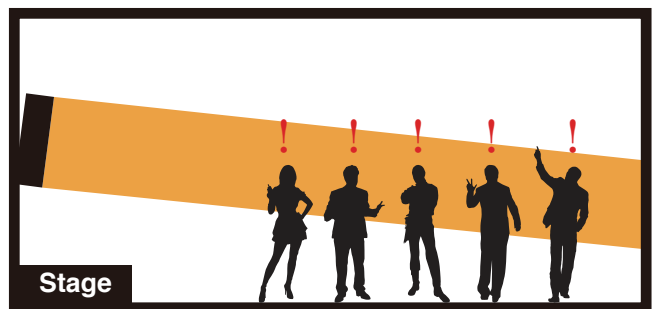
The sound that reflected to ceiling is reduced and prevent to produce the unnecessary reflect sound if the vertical pointing angle becomes narrow.

In this result, articulation can be improved as direct sound of reflect sound is increased.

Also, the margin of howling can be increased if the sound that enters to stage becomes minimized.

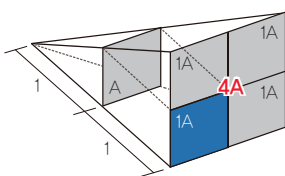


Conventional Speaker



Line Array Speaker

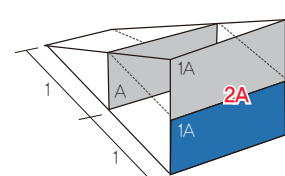
<Sound Pressure level reduction 6dB>



System of general system

VS

<Sound Pressure level reduction 3dB>



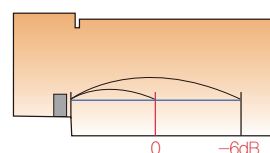
System of line array speaker

2. The level of sound pressure is decreased depend on distance

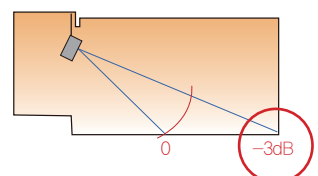
The level of sound pressure can be decreased if the angle and level between the modules of huge array system is adjusted.

In other word, the difference of level between front and back seat can be eliminated. The existing also can be reduced the difference of level between front and back seat but it can be produced difference of sound quality between seats.

<Stack Type>



<Flying Type>

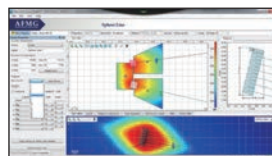
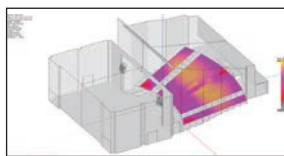


Pressure level reduction of basing mode

Technical Features

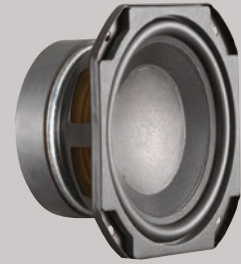


EASE Program ►
EASE FOCUS Program ►►



High quality driver

CLA-K series used the high quality driver for producing of dynamic sound and enough low sound. The driver that is used for CLA-K has consistent quality and high durability and can be helped to operate stably under diversity circumstances. LF driver use the forced cooling system for maximum of thermal efficiency and driver for high sound use titanium having low harmonics for playing without any distortion of sound.



Waveguide

The line array uses the wave guide for the minimizing of mutual interruption. This guide make to change the source of high sound from circular wave to linear wave so the mutual interruption become minimized when several speaker installed as one array. Also, the design of CLA-K series are optimized for size of waveguide and CLA-K series improve the character of high sound.



Compact size of acoustic enclosure

Module type of speaker as present line array needs the compact size for interior. The enclosing is designed for providing both powerful low sound and high sound pressure. So, even the compact size of CLA-K series can be working very well. Also, the clear sound can be provided as blocking of internal resonance and absorbing of unnecessary energy by high density of sound- absorbing material.



Strong and accurate rigging system

The rigging system that used for CLA-K series was made for the safe installation of flying, so it is possible to install strongly. The control of array for one degree can be possible from 0 degree to 10 degree and Based on the safe rate, 5:1, 24 boxes of CLA-5K can be installed for one array and 16 boxes of CLA-8K can be made for one array. Also, the version of touring and outdoor one can be supplied if the customer requests.

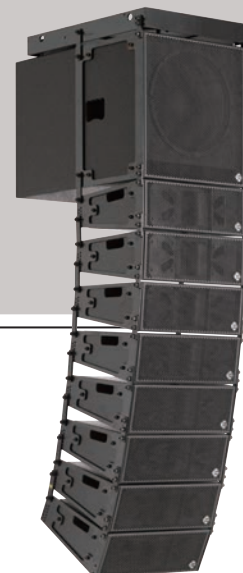


Strong enclosure- VOID FREE

Selection of wood and bonded process system are important source for high quality speaker. CLA series was made of premium Birch plywood which made in North Europe and there is no resonance according to vacant in plywood. The increasing durability and minimization of leaking sound can be possible by 'DADO' connection method of enclosure that made by the premium wood and the accurate process.

Support of EASE, EASE Focus data

CLA-K series basically supports the EASE DATA that supports the "EASE FOCUS" software. The EASE Focus supports the simple simulation for installation companies and operators and they do not need to purchase this software because it can be downloaded at the internet. For more exact simulation, the system designer can test the same file at EASE software, and it can be estimated more accurately by 3D type of data.



CLA-8K Series

Dual 8" 2Way Bi-amp Line Array Speaker





▼ CLA-8K Front



CLA-8K is designed for line array so it is possible to use in diversity locations. The 8" high quality of low sound driver was settled and two of 1" high output titanium tweeter is installed at waveguide so it can be made line sound of high level for necessary source of line array.

Base on the 1 degree, Each speaker can be controlled the degree from 0 to 10 degree and the degree of array is decided according to top and bottom angle of each speaker.

The high output tweeter that is installed in waveguide passes on stable sound signal to 90 degree of wide range and clearer sound can be played using by paging plug.

When the full range of array is composed, the arrangement of only CLA-8K can be played wide range of frequency.

For music performance and other events, it is possible to install with sub woofer, CLA-18SK, as flying type or ground stack to reinforce low sound.

The cabinet of CLA-8K is made by premium Birch plywood which made in North Europe and the front panel is manufactured by steel grill. Also, the handle grips are settled on the right and left sides for carrying with flying tools made by steel. The installment of flying speak can make through this flying tools.

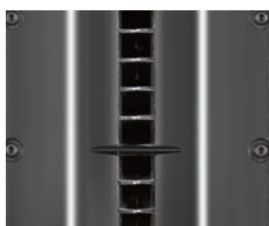
The two pieces of NL4 connectors can be connect with power amplifier by directly or connect with speaker in parallel.



HF Waveguides ►

CLA-8K Rear ►►

CLA-8K Rigging system ►►►



▼ CLA-18SK Front panel



CLA-18SK

18" Line Array Subwoofer








CLA-18SK is the sub woofer which 18" premium high output driver is settled can be used with CLA-8K or can be used by itself. The cone type woofer driver that has high output and used Long-Excursion method of CLA-18SK is settled on the front panel and the reflect sound on back side is designed for helping reinforcement of low level by fort.

CLA-18SK is can be used for diverse types with full range of CLA-8K speaker.

The frying type is possible when CLA-18SK is settled on top of CLA-8K speakers and ground stack is also possible if the CLA-18SK stand on the ground and then put on CLA-8K. CLA-18SK can be used as subwoofer for reinforcement of low sound with CLA-8K when it set up on the bottom depend on needs.

The composition source of system

Model	Function	Performance	Image
Full range of line array CLA-8K	The main element of CLA-8K system. Play high quality sound and minimize the decreasing of sound pressure according to distance. One circuit can connect with up to four boxes	<ul style="list-style-type: none"> • 2x8" LF driver • 450W AES/ 1800W Peak • 2x1" HF driver • 60W AES/ 240W Peak • LF:124.6dB / HF:122.69dB Max. SPL • Plane wave Guide • 90deg Horn • Bi-amp with HF protection • 16/16ohms LF/HF impedance 	
Sub woofer of line array CLA-18SK	Improve of the low sound for CLA-8K system. Minimize the visual parts through hanging with CLA-8K.	<ul style="list-style-type: none"> • 18" Long-excursion driver • 800W AES/ 3200W Peak • 132.03dB Max SPL • Extended to 35Hz • 8ohms impedance 	
Rigging frame CLA-8K FRAME	This frame can be support the installation of rigging for CLA-8K Up to 24 boxes of CLA-8K can be installed based on safe rate (5:1)	<ul style="list-style-type: none"> • Power-coated steel frame • MAX rigging • 14 boxes @ 5:1 safety factor • 10 boxes @ 7:1 safety factor 	
Speaker processor CSP-4.8	Digital speaker processor which is included in the circuit for protecting of speaker can be controlled the quality of sound of CLA-8K system and optimized of space.	<ul style="list-style-type: none"> • 4IN/ 8OUT DSP • Gain, Matrix, Delay • PEQ, X-OVER, Comp, Limiter • Front/USB(GUI) control 	
Power amplifier V2 SERIES	The professional amplifier that can play high quality sound and has light weight can be played dynamic range. The output range is more than twice of speaker output.	<ul style="list-style-type: none"> • Light-weight High-power • Class-H, SMPS type • 2U size up to 5000W • V2-5000 for CLA-18K SUB • V2-4000 for CLA-8K LF • V2-3000 for CLA-8K HF 	

Driver / Port ►
CLA-18SK Rear ►►



CLA-5K Series

Dual 5" 2Way Bi-amp Compact Line Array Speaker





▼ CLA-5K Front



CLA-5K is designed compact size for small spare and this size can be avoided the limit of line array.

Two 5" high performance of lower driver are settled to individual housing and 1" high output of titanium tweeter was set up on waveguide so it can be produced the sound of high level.

Basically, the CLA-5K is complete when the several cabinets are arranged vertically. Up to 24 pieces of speakers can be arranged for this.

Base on the 1 degree, each speaker can be controlled the degree from 0 to 10 degree and the degree of array is decided according to top and bottom angle of each speaker.

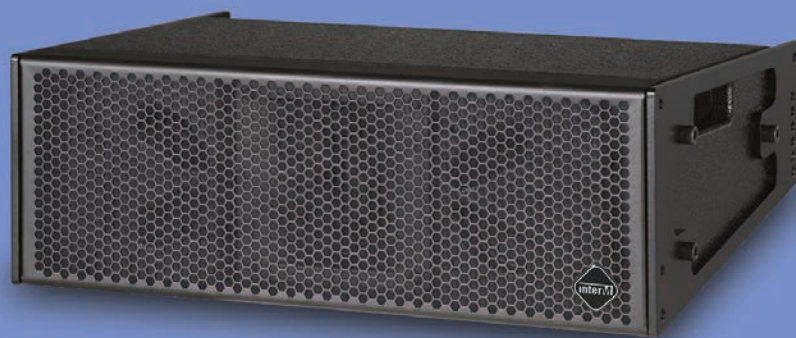
When the full range of array is composed, the arrangement of only CLA-5K can be played wide range of frequency.

For music performance and other events, it is possible to install with sub woofer, CLA-15SK, as flying type or ground stack to reinforce low sound

The cabinet of CLA-5K is made by premium Birch plywood which made in North Europe and the front panel is manufactured by steel grill. Also, the handle grips are settled on the right and left sides for carrying with flying tools made by steel.

The installment of flying speak can make through this flying tools.

The two pieces of NL4 connectors can be connect with power amplifier by directly or connect with speaker in parallel.



HF Waveguides ►

CLA-5K Rear ►►

CLA-5K Rigging system ►►►



▼ CLA-5K Front panel



CLA-15SK

15" Line Array Compact Subwoofer



CLA-15SK is the sub woofer which 15" premium high output driver is settled can be used with CLA-5K or can be used by itself. The cone type woofer driver that has high output and used Long-Excursion method of CLA-15SK is settled on the front panel and the reflect sound on back side is designed for helping reinforcement of low level by fort.

CLA-15SK is can be used for diverse types with full range of CLA-5K speaker.

The frying type is possible when CLA-15SK is settled on top of CLA-5K speakers and ground stack is also possible if the CLA-15SK stand on the ground and then put on CLA-15SK.

CLA-15SK can be used as subwoofer for reinforcement of low sound with CLA-5K when it set up on the bottom depend on needs. The two pieces of NL4 connectors can be connect with power amplifier by directly or connect with speaker in parallel.

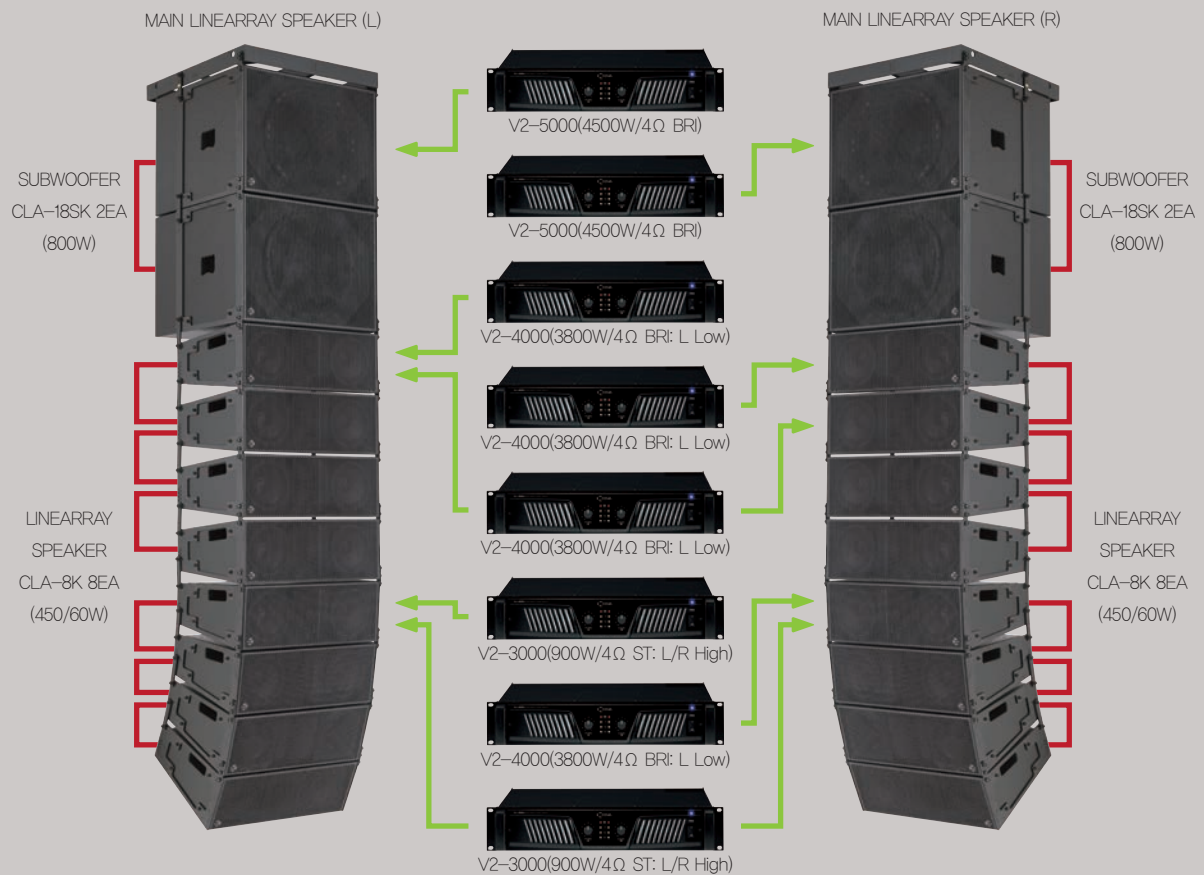
The composition source of system

Model	Function	Performance	Image
Full range of line array CLA-5K	The main element of CLA-5K system Play high quality sound and minimize the decreasing of sound pressure according to distance One circuit can connect with up to four boxes	<ul style="list-style-type: none"> • 2x5" LF driver • 160W AES/ 640W Peak • 1" 30W HF driver • 30W AES/ 120W Peak • LF:114.03dB / HF:120.60dB Max SPL • Plane wave Guide • 90deg Horn • Bi-amp with HF protection • 16/8 ohms LF/HF impedance 	
Sub woofer of line array CLA-15SK	Improve of the low sound for CLA-5K system Minimize the visual parts through hanging with CLA-5K	<ul style="list-style-type: none"> • 15" Long-excursion driver • 600W AES/ 2400W Peak • 129.78dB Max SPL • Extended to 35Hz • 8 ohms impedance 	
Rigging frame CLA-5K FRAME	This frame can be support the installation of rigging for CLA-5K Up to 24 boxes of CLA-5K can be installed based on safe rate (5:1)	<ul style="list-style-type: none"> • Power-coated steel frame • MAX rigging • 24 boxes @ 5:1 safety factor • 20 boxes @ 7:1 safety factor 	
Speaker processor CSP-4.8	Digital speaker processor which is included in the circuit for protecting of speaker can be controlled the quality of sound of CLA-8K system and optimized of space.	<ul style="list-style-type: none"> • 4IN/ 8OUT DSP • Gain, Matrix, Delay • PEQ, X-OVER, Comp, Limiter • Front/USB(GUI) control 	
Power amplifier V2 SERIES	The professional amplifier that can play high quality sound and has light weight can be played dynamic range. The output range is more than twice of speaker output.	<ul style="list-style-type: none"> • Light-weight High-power • Class-H, SMPS type • 2U size up to 5000W • V2-3000 for CLA-15K SUB • V2-4000 for CLA-5K LF • V2-1000 for CLA-5K HF 	

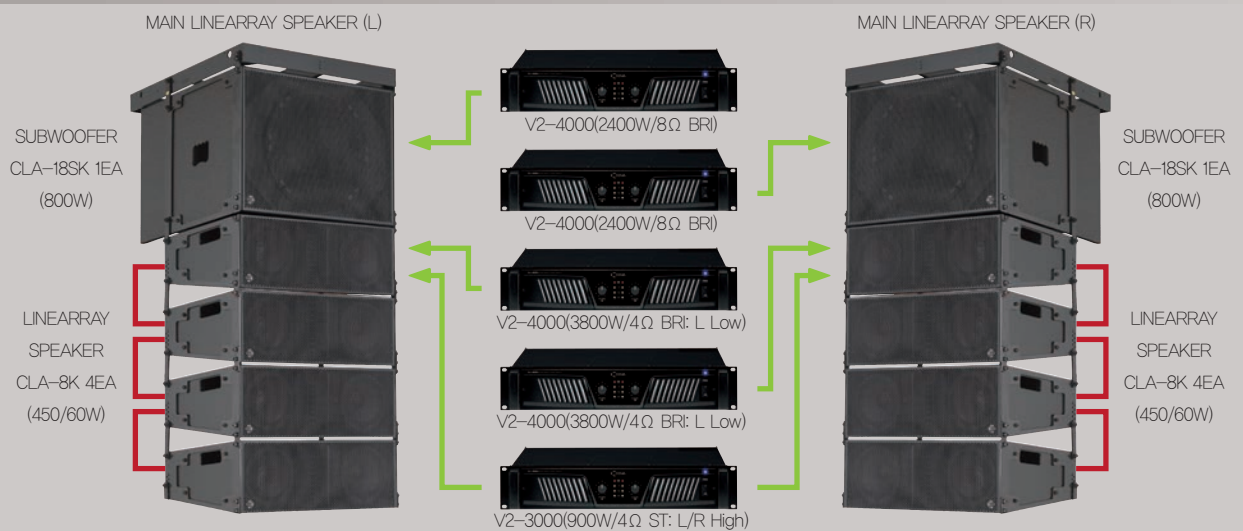
Driver / Port ►
CLA-15SK Rear ►►



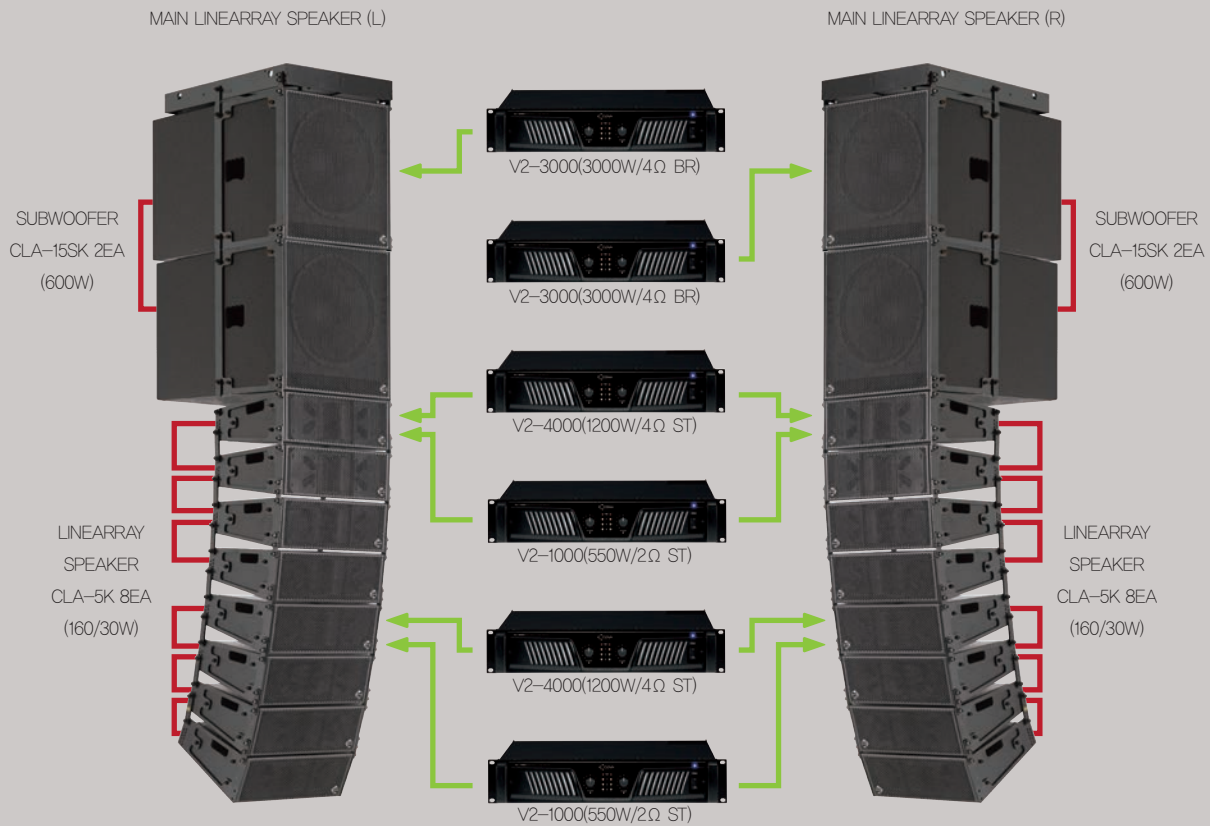
CLA-8K & 18SK System Concept-1 : Worship / Auditorium



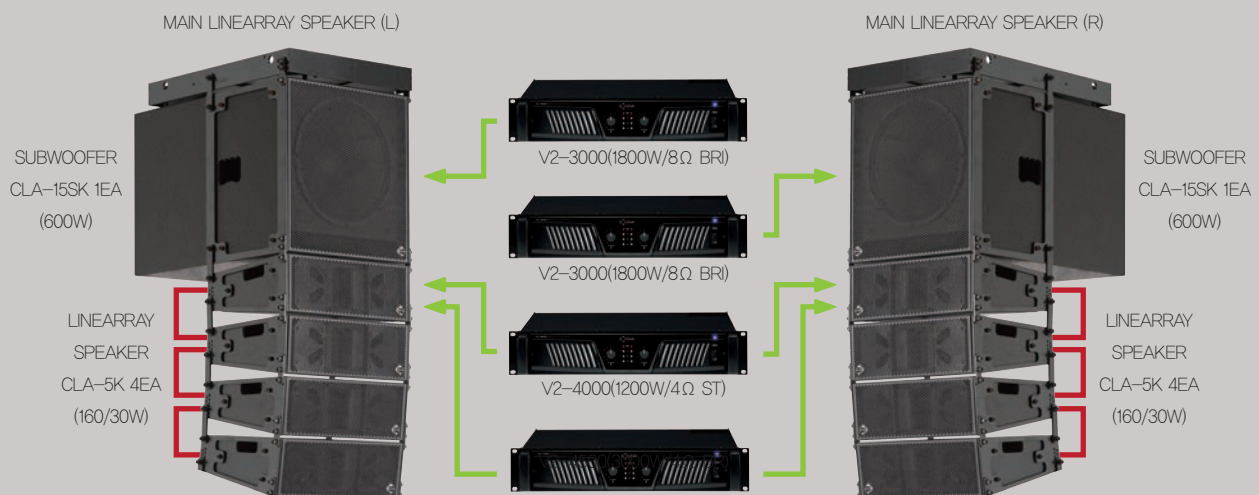
CLA-8K & 18SK System Concept-2 : Educational institutions / auditorium / gymnasium



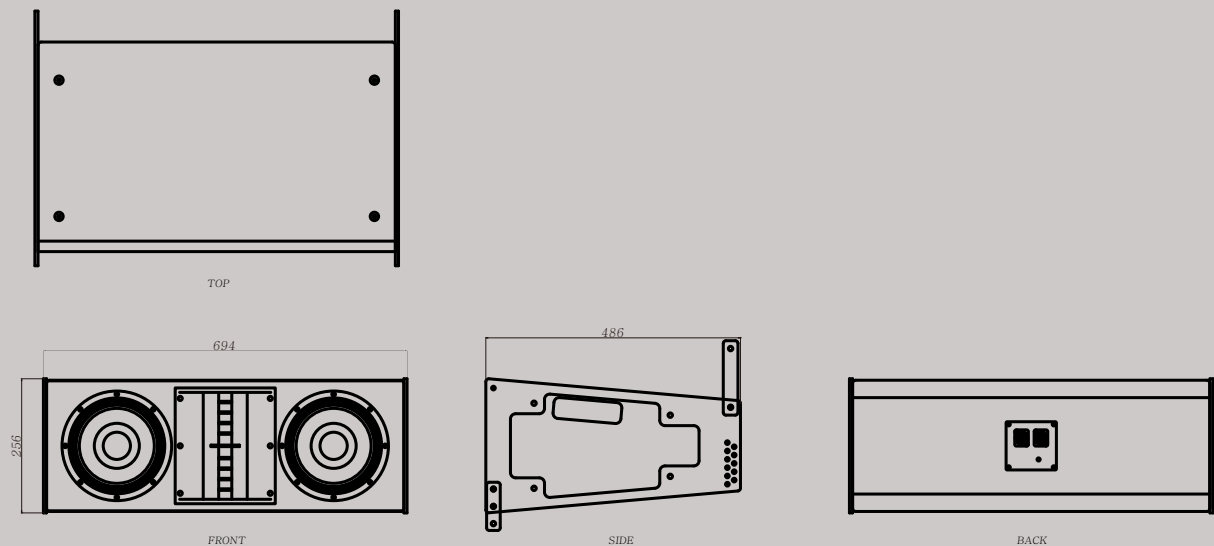
CLA-5K & 15SK System Concept-1 : Culture and Sports Facilities / Small Auditorium



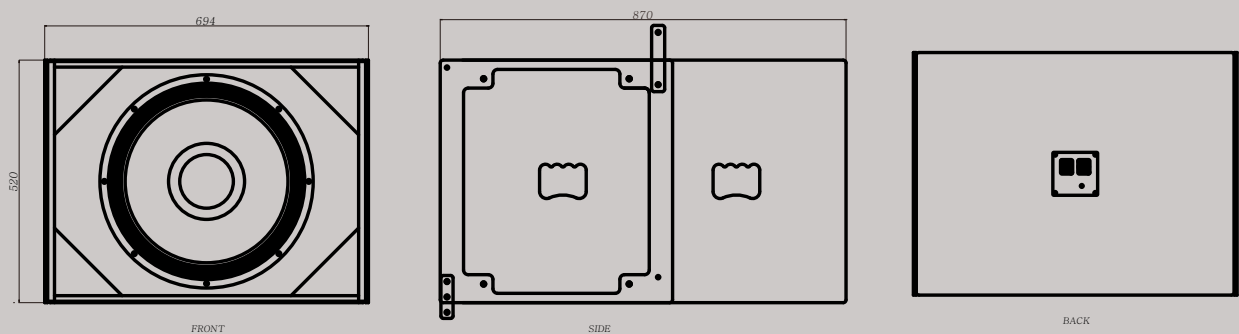
CLA-5K & 15SK System Concept-2 : Large Classroom / venue



CLA-8K

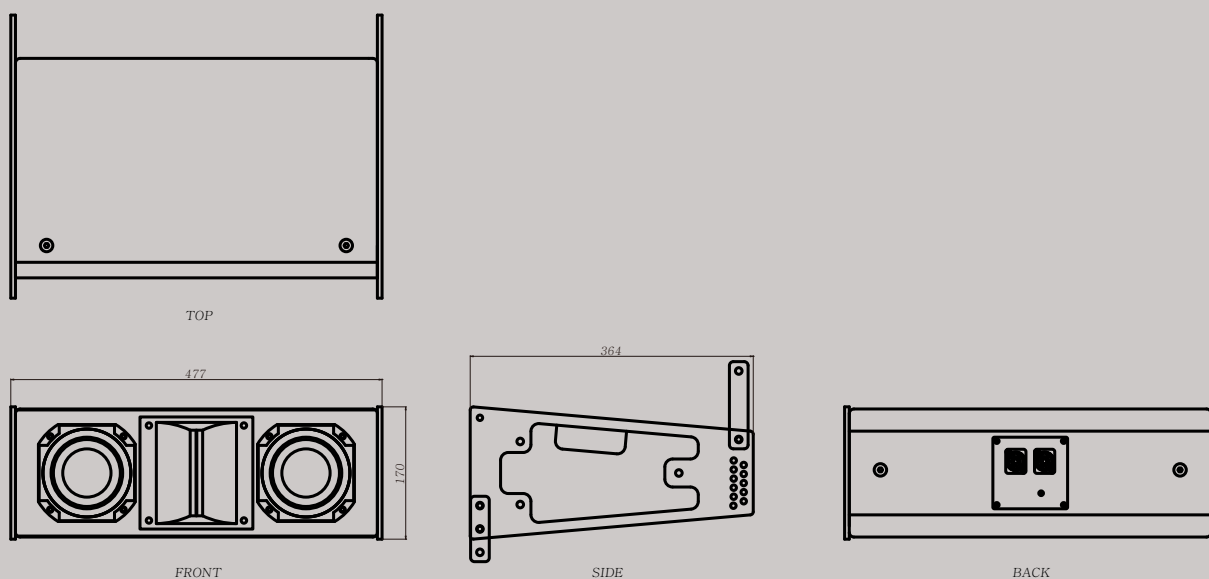


CLA-18SK

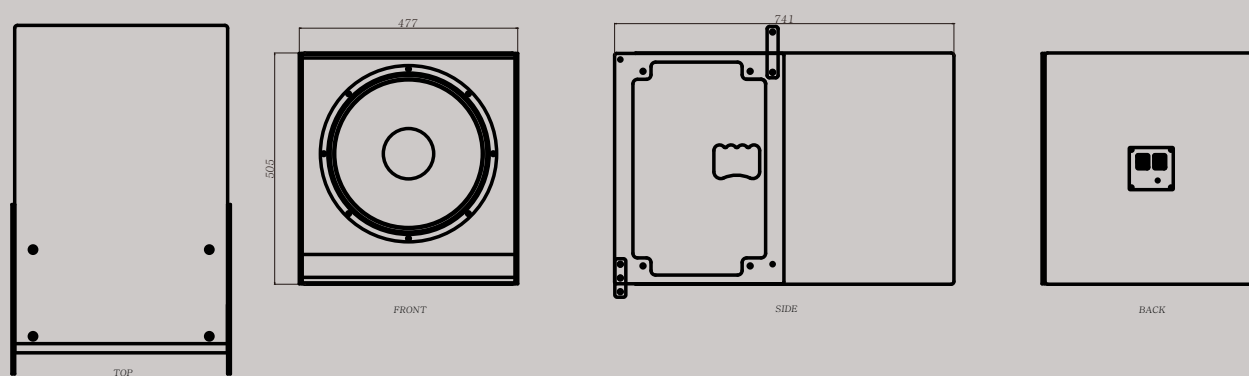


CLA-8K Dual 8" 2Way Bi-amp Line Array Speaker **CLA-18SK** 18" Line Array Subwoofer
CLA-5K Dual 5" 2Way Bi-amp Compact Line Array Speaker **CLA-15SK** 15" Line Array Compact Subwoofer

CLA-5K



CLA-15SK



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MEMO

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CLA-5K Dual 5" 2Way Bi-amp Compact Line Array Speaker **CLA-15SK** 15" Line Array Compact Subwoofer



Specifications

Model	CLA-8K	CLA-18SK
Type	Compact Linearray Module, 2 x 8" 2way Bi-Amping Loudspeaker	Compact Flying-Sub Module, 18" x 1 subwoofer
Frequency Response(-10dB)	72 Hz~20 kHz	35Hz-3kHz
Rated Power(AES)	LF: 450W / HF: 60W	800W
Rated Power(Program)	LF: 900W / HF: 120W	1600W
Rated Power(Peak)	LF: 1600W / HF: 240W	3200W
Recommended Power	LF: 900W / HF: 120W	1600W
Sensitivity(1W/1m)	LF: 98dB / HF: 110dB	103dB SPL
Maximum SPL(Continuous/ Peak)	LF:130dB / HF:133dB	138dB SPL
Normal Dispersion(H/V)	90°H/10°V	OMNI
Nominal Impedance	LF: 16 Ω / HF: 16 Ω	8Ω
Recommended High-Pss Filter	60Hz,24dB/Oct.LR Filter	30Hz,24dB/Oct.LR Filter with Limiter
LF Driver	8" Wooferx2 EMINENCE USA, BETA-8A	18" Single Woofer EMINENCE OMEGA PRO 18A
HF Driver	2 x 1.4" Mylar Compression 1" Titanium B&C, DE14-8	-
Horn	Constant directivity horn with Precision waveguide	-
Passive / Active	Bi-amp	Passive(woofer)
Enclosure Material	15mm Birch Wood	15mm Birch Wood
Grill	Black powder coated 14 guage hexagon perforated steel, protection mesh backing	Black powder coated 14 guage hexagon perforated steel, protection mesh backing
Connectors	2 x SP4 on steel panel	2 x SP4 on steel panel
Fittings/Suspension	4 Point Flying Rigging 0°~10° variable angle(1°step)	4 Point Flying Rigging
Finish	Textured black RoHS compliant paint	Textured black RoHS compliant paint
Color	BLACK/WHITE	BLACK/WHITE
Weights(Net/Shipping)	58.9 lb	99.2 lb
Dimensions(WxHxD)	27.3x10.1x19.1 in	27.2x20.5x26.9 in
Optional Accessorys	CLA-8 Frame	CLA-8 Frame

Model	CLA-5K	CLA-15SK
Type	Compact Linearray Module, 2 x 5" Passive Loudspeaker	Compact Flying-Sub Module, 15" x 1 subwoofer
Frequency Response (-10dB)	75Hz-18KHz	39Hz-2.7kHz
Rated Power(AES)	LF: 160W / HF: 30W	600W
Rated Power(Program)	LF: 320W / HF: 60W	1200W
Rated Power(Peak)	LF: 640W / HF: 120W	2400W
Recommended Power	LF: 320W / HF: 60W	1200W
Sensitivity(1W/1m)	LF: 93 dB / HF: 105 dB	102dB SPL
Maximum SPL(Continuous/ Peak)	LF:121dB / HF :125dB	135dB SPL
Normal Dispersion(H/V)	90°H/10°V	OMNI
Nominal Impedance	LF: 16 Ω / HF : 8 Ω	8Ω
Recommended High-Pss Filter	70Hz,24dB/Oct.LR Filter	35Hz,24dB/Oct.LR Filter with Limiter
LF Driver	5" Wooferx2 Faital PRO, 5FE120	15" Single Woofer EMINENCE USA, KAPPA-15LFA
HF Driver	1.4" Mylar Compression 1" Titanium B&C, DE14-8	-
Horn	Constant directivity horn with Precision waveguide	-
Passive / Active	Bi-amp	Passive(woofer)
Enclosure Material	15mm Birch Wood	15mm Birch Wood
Grill	Black powder coated 14 guage hexagon perforated steel, protection mesh backing	Black powder coated 14 guage hexagon perforated steel, protection mesh backing
Connectors	2 x SP4 on steel panel	2 x SP4 on steel panel
Fittings/Suspension	4 Point Flying Rigging 0°~10° variable angle(1°step)	4 Point Flying Rigging
Finish	Textured black RoHS compliant paint	Textured black RoHS compliant paint
Color	BLACK/WHITE	BLACK/WHITE
Weights(Net/Shipping)	29.1 lb	80.0 lb
Dimensions(WxHxD)	18.8x6.7x14.3 in	18.6x19.9x29.2 in
Optional Accessorys	CLA-5 Frame	CLA-5 Frame

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※ Design and specification are subject to be changed for the improvement of product quality without pre notice.

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