Contents [hide]

EAW QX Series Installed System Applications

Using the Loudspeaker

Users will need to perform the following general tasks to properly put an EAW install engineered product into use. This guide includes details for each task.

1. Design the system using the Resolution™ 2 Design & Control Software (see the program Help File for further information about using Resolution).
2. Design and install suspension points to support the product(s)/rigging in intended locations and aimed in the desired directions. If ground-stacked, provide a level surface capable of supporting the total weight of the loudspeaker(s).
3. Connect the loudspeakers to a supported EAW Processor and/or power amp.
4. Set-up and adjust overall system gain and signal processing, as needed to maximize the array's performance for the application.
5. Provide training to operate the loudspeakers within their limits.
6. Provide regular inspection and maintenance to maintain the integrity of the installation and the performance of the loudspeakers.

Sound System Design

See Resolution Help File for assistance in properly designing line array systems.

Software

EAW Resolution 2 software is designed to assist in SPL predictions, determine splay angles, and calculate rigging limits for all line array items.
Always ensure that your EAW Resolution software is up-to-date.
For a complete list of recommended system requirements, please refer to the Resolution 2 help file.

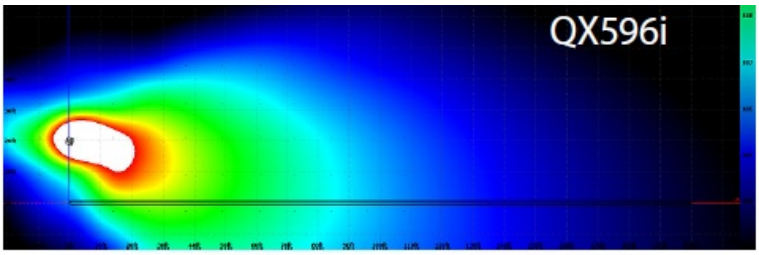
Using EAW Resolution™

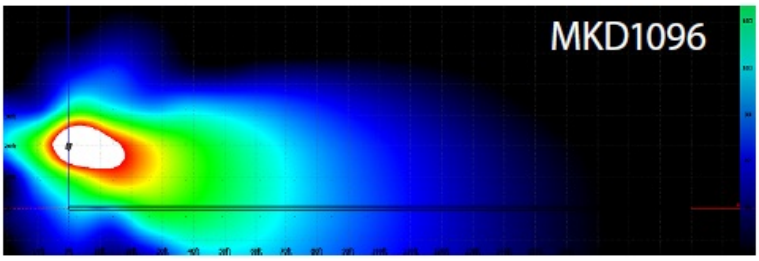
EAW Resolution is the key to determining the optimal loudspeaker configuration for any application. Rooted in EAW's proprietary FChart modeling and calculation engine, Resolution allows users to easily model any venue and visualize a wide variety of sound system designs to determine what particular configuration is best suited to the venue. Users simply need to define the loudspeaker position, allowable trim, minimum clearance, and quantity available and use the Assistant to determine the optimal loudspeaker configuration for a given venue. In many situations no further prediction

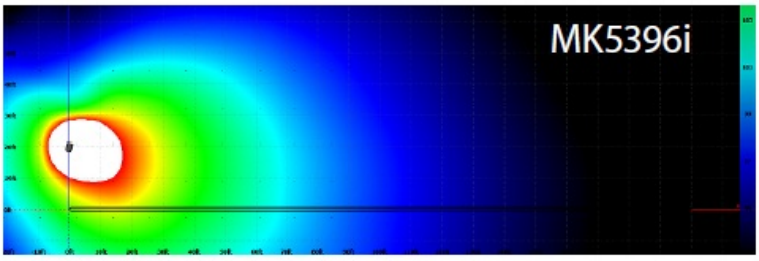
work will be necessary for optimal results. Users can also adjust the results after running the Assistant by manually adding/removing modules or adjusting coverage and observing changes in predicted results.
Please visit www.eaw.com to download the latest version of Resolution. Instructional videos can be viewed on education.eaw.com.

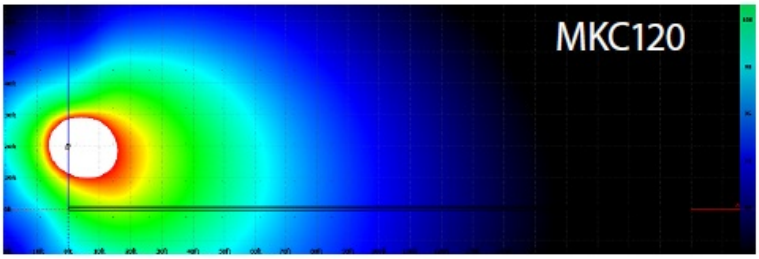
Increased Directivity & Performance for every application in one solution

It's helpful to look at EAW install engineered products as one solution. Meaning, where one product may leave of, another can easily take it's place and complete the task. For instance, if QX series is specified but cost is of concern, MKD series is a viable solution with only a small sacrifice in performance. Same could be said when looking at MKD series to MKi series. Though these are different series, they compliment each other. All have various matching horn patterns, which enables coverage matching between these products to remain seamless, with only a drop in performance and clarity.
Below are some examples on how directivity scales between each product line (1 octave, 400hz)









UXA Installation Amplifiers

UXA4401

UXA4403

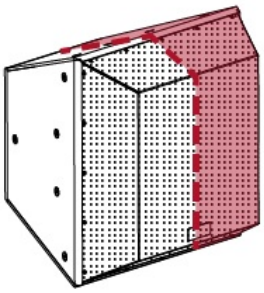
UXA4807D

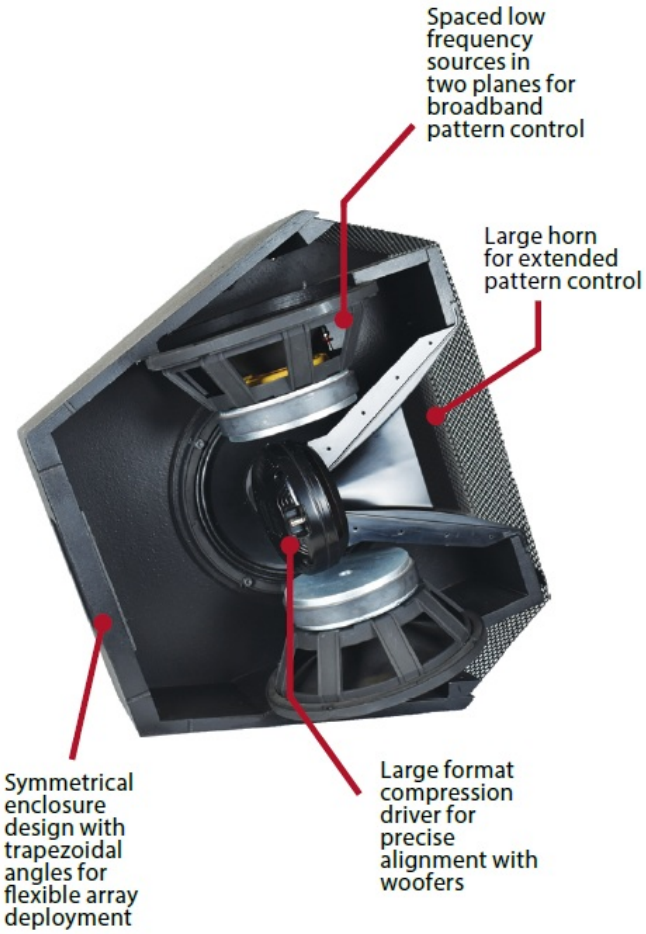
QX Series

- QX544i ►45° x 45°
- QX564i ►60° x 45°
- QX566i ►60° x 60°
- QX594i ►90° x 45°
- QX596i ►90° x 60°
- QX326 ►120° x 60°
- QX364 ►60° x 45°
- QX366 ►60° x 60°
- QX394 ►90° x 45°
- QX396 ►90° x 60°
- QX399 ►90° x 90°

INSIDE EAW TECHNOLOGIES

SIDE VIEW CROSS





QX300 SERIES

TWO-WAY TRAPEZOIDAL ENCLOSURE

SUBSYSTEM

LF 4. 10-in cone
HF 1. 1.4-in. exit, 4-in. voice coil compression driver

NOMINAL BEAMWIDTH	60° x 45° to 120° x 60° (by Model)
FREQUENCY	66hz – 20khz
MAX SPL	141 – 144dB (Variable by Model)

QX500 SERIES

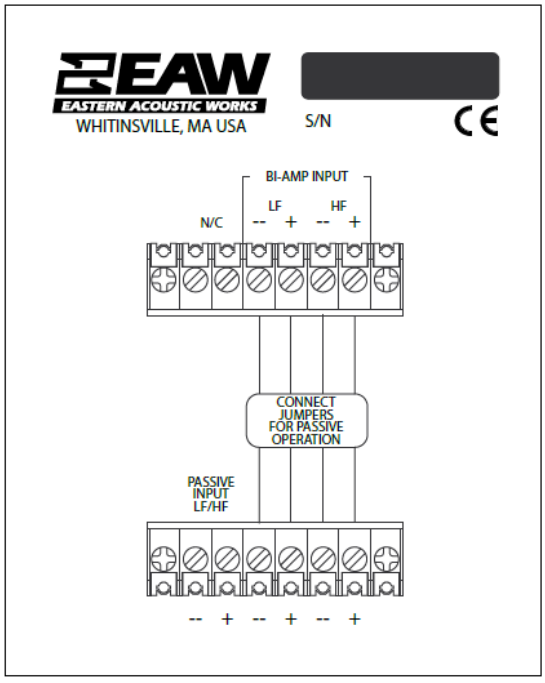
THREE-WAY TRAPEZOIDAL ENCLOSURE

SUBSYSTEM

LF 4x 12 in. cone
MF 1x. 2 in. exit 3.5 in. compression
HF 1x 2 in. exit, 1.75 in compression driver

NOMINAL BEAMWIDTH	45° x 45° to 90° x 60° (by Model)
FREQUENCY	55hz – 20khz
MAX SPL	145 – 147 dB (by Model)

INPUT



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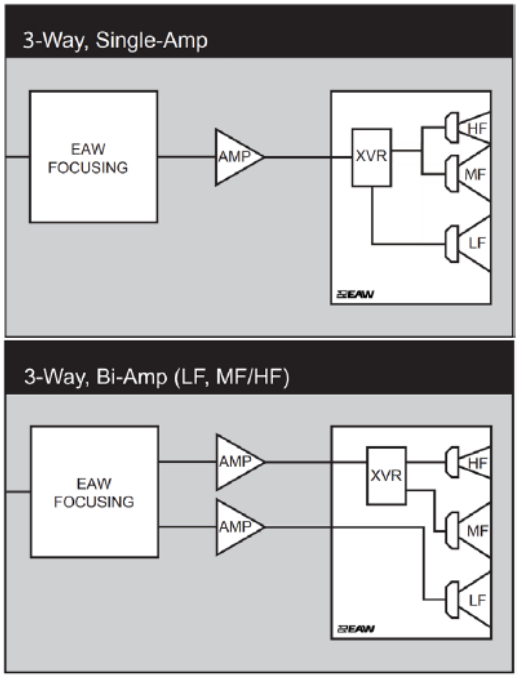

QX300

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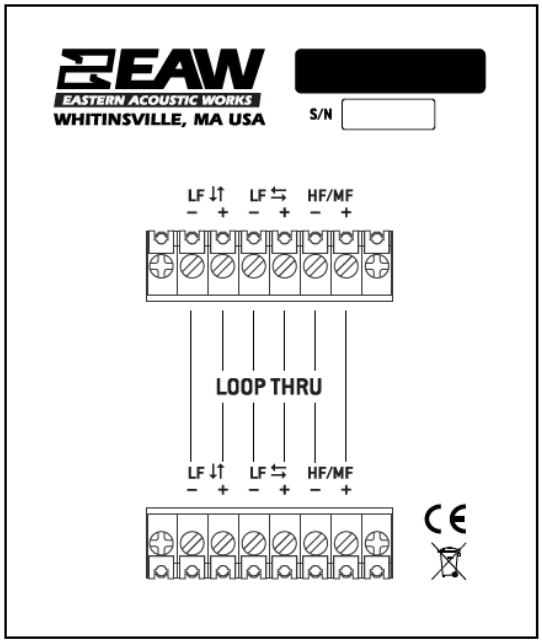

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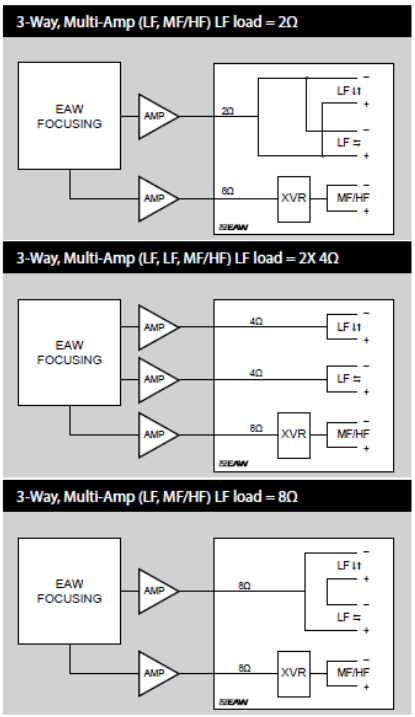
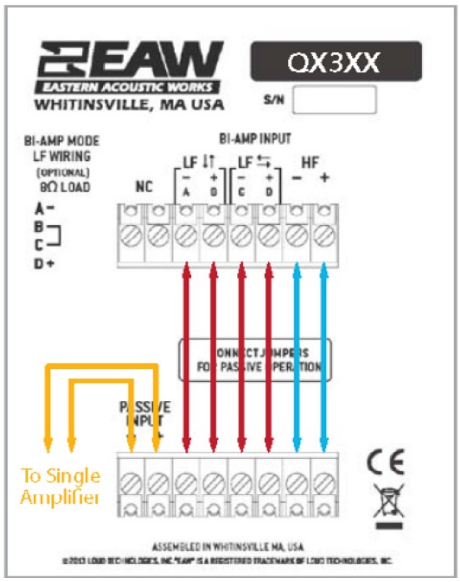


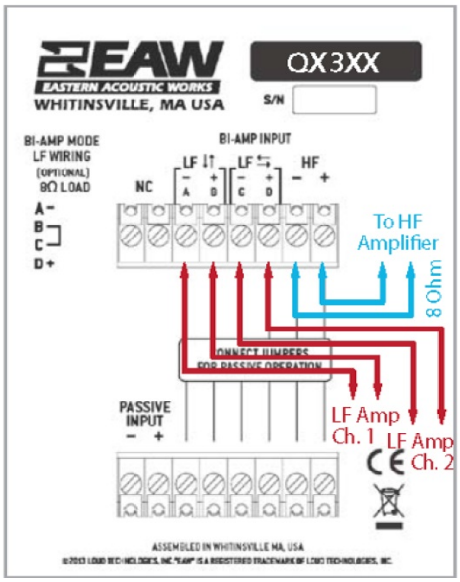
QX500i

HPF	High Pass Filter for crossover or Recommended High Pass
LPF	Low Pass Filter for crossover
LF/MF/HF	Low Frequency / Mid Frequency / High Frequency
AMP	User Supplied Power Amplifier –or– Integral Amplifier
XVR	Passive LPFs, HPFs, and EQ integral to the loudspeaker
EAW Focusing	Digital Signal Processor capable of implementing EAW

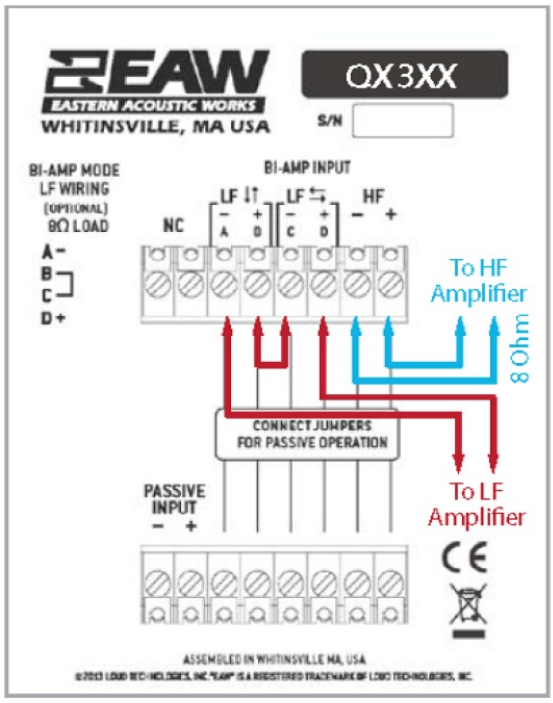
QX300 Wiring Options

- Passive Wiring 8 Ohm Rating
- LFI and LF2 4 Ohm Rating

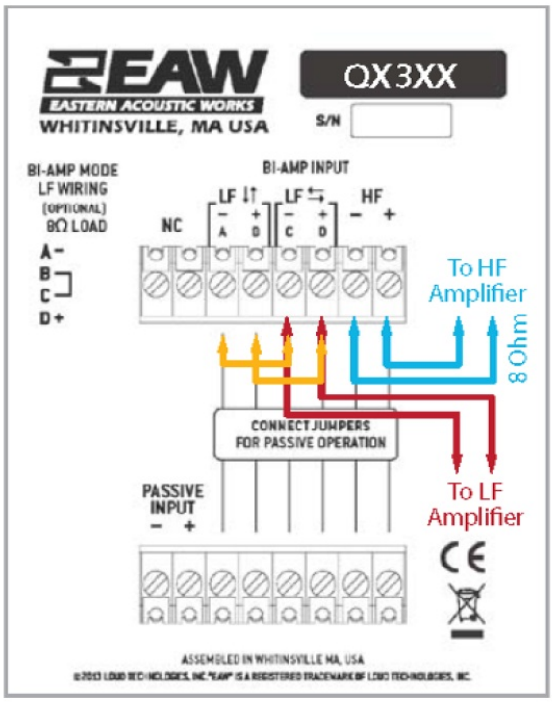




- LFs in Series 8 Ohm Rating
- LFs in Parallel 2 Ohm Rating



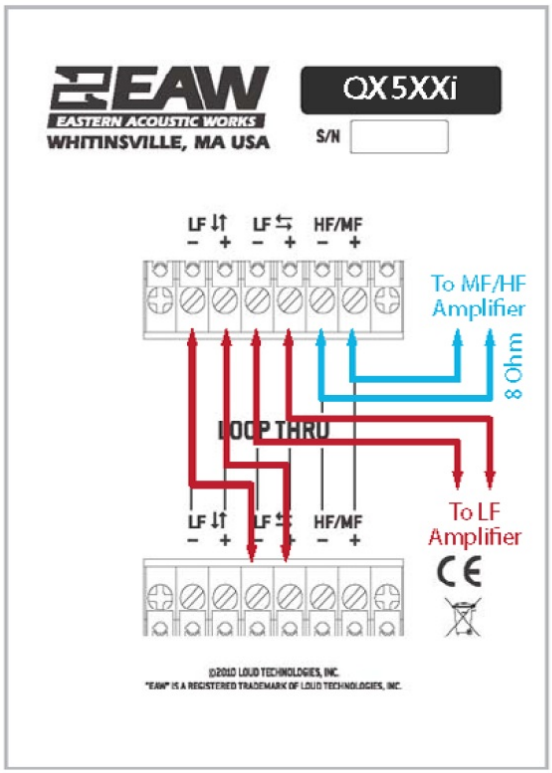
Requires Greybox: QX3xx_BI_GF(8 Ohm_LF)

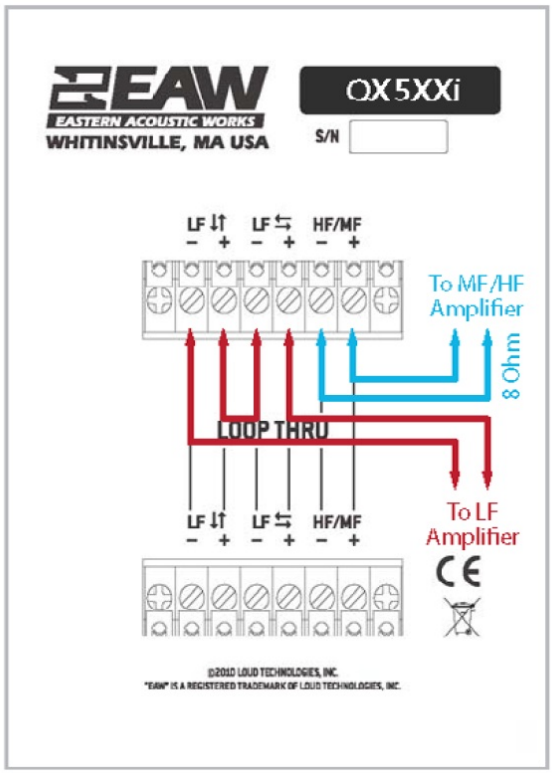


Requires Greybox: QX3xx_BI_GF

QX500 Wiring Options

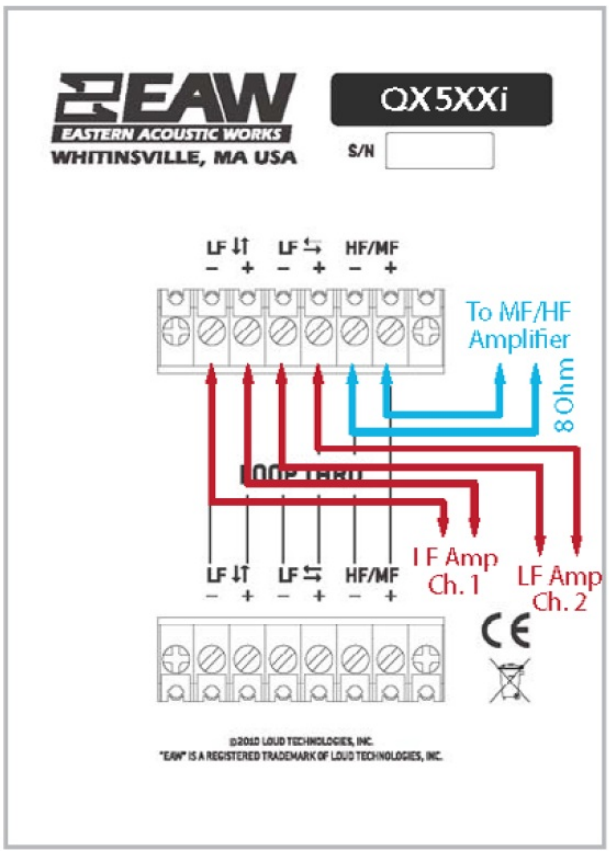
- LFs In Parallel 2 Ohm Rating
- LFs In series 8 Ohm Rating





- LFI and LF2

  4 Ohm Rating



QX Series Recommended Systems & Amp Pairings

QX300 Single Amp

Amplifier	**Single Ended** Speaker per channel	**Bridge Mode** Speaker per channel
UXA4401(D)	–	–
UXA4403D	–	2
UXA4807D	–	2

QX300 Bi Amp

Amplifier	**Single Ended** Speaker per channel	**Bridge Mode** Speaker per channel
UXA4401(D)	–	–
UXA4403D	LF (2X4ohm) uses 2 ch HF 2	LF 1 HF 2
UXA4807D	LF (2X4ohm) uses 2 ch HF 2	LF 1 HF 2

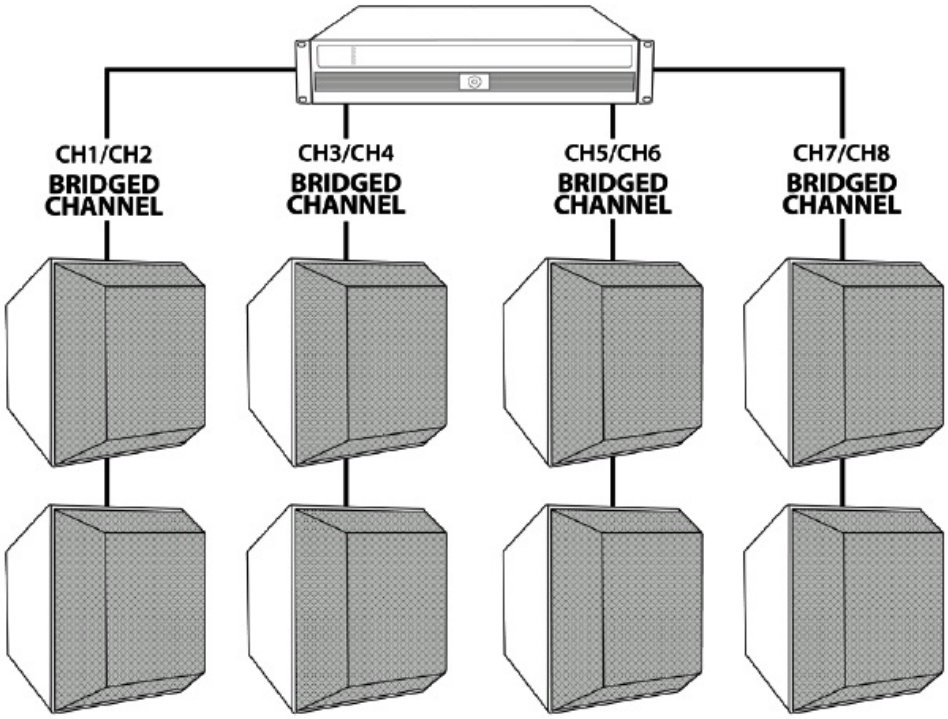
QX500 Bi Amp

Amplifier	**Single Ended** Speaker per channel	**Bridge Mode** Speaker per channel
UXA4401(D)	–	–

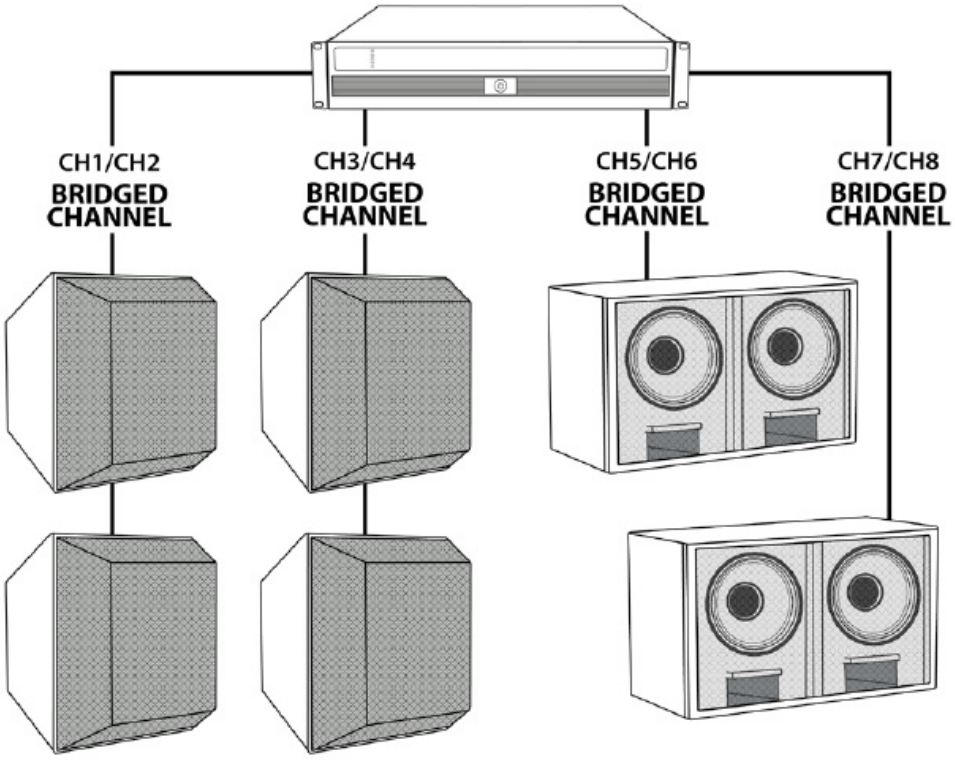
UXA4403D	–	LF (2x4ohm) uses 2 bridge d ch HF 2
UXA4807D	–	LF (2x4ohm) uses 2 bridge d ch HF 2

QX Series Recommended Systems & Amp Pairings

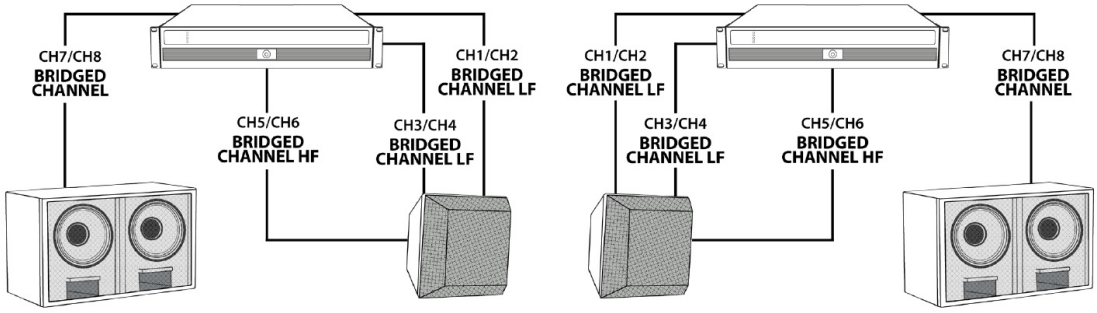
QX300 Single Amp (UXA4807D)



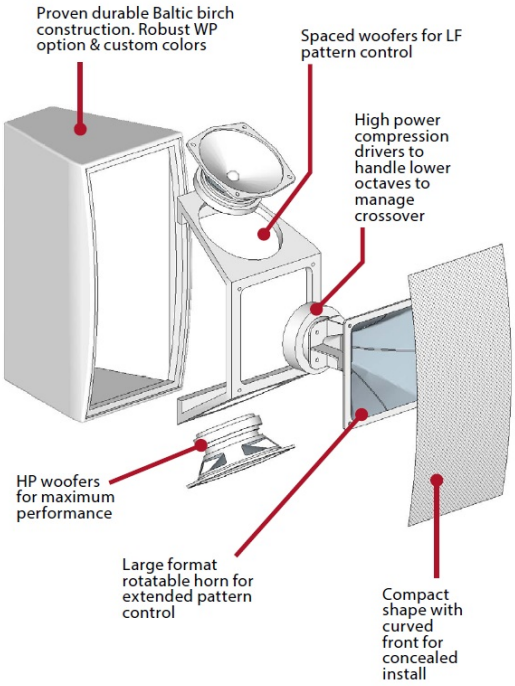
QX300 Single Amp w/SB528z Subwoofer (UXA4807D)



QX500 Bi Amp w/SB528z Subwoofer (UXA4807D)



MKD Series



MKD1000 - No Grill

MKD800 SERIES

2-WAY FULL RANGE LOUDSPEAKER

SUBSYSTEM	2 x 8in Cone, 2in Voice Coil, Vented 1 x 1in Exit, 2in Compression Driver, Horn Loaded
NOMINAL BEAMWIDTH	Horizontal 60°, 90°, 120° Vertical 45°, 60° (by Model)
FREQUENCY	62Hz – 19kHz
MAX SPL	135 dB

MKD1000 SERIES

2-WAY FULL RANGE LOUDSPEAKER

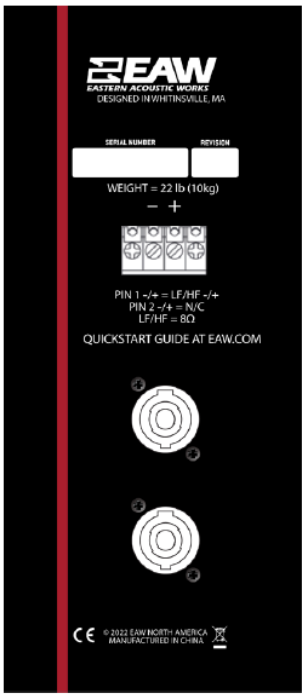
SUBSYSTEM	2 x 10in Cone, 2.5in Voice Coil, Vented 1 x 1.4in Exit, 4in Neodynium Compression Driver, Horn Loaded
NOMINAL BEAMWIDTH	120° x 60°, 60° x 45° 90° x 60° (by Model)
FREQUENCY	57Hz – 20kHz
MAX SPL	141dB

MKD1200 SERIES

3-WAY FULL RANGE LOUDSPEAKER

SUBSYSTEM	2 x 12in Cone, 3in Voice Coil, Vented 1 x 2in Exit, 3.5in Voice Coil, Compression Midrange, Horn Loaded 1 x 2in Exit, 1.75in Voice Coil, Compression driver, Horn Loaded
NOMINAL BEAMWIDTH	60° x 45°, 90° x 45° (by Model)
FREQUENCY	47Hz – 20kHz
MAX SPL	147 dB

INPUT



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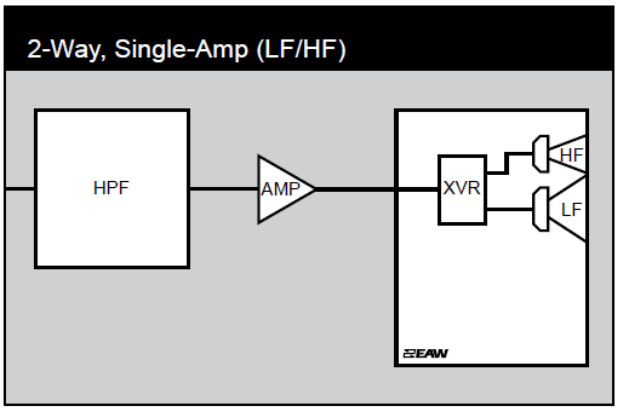
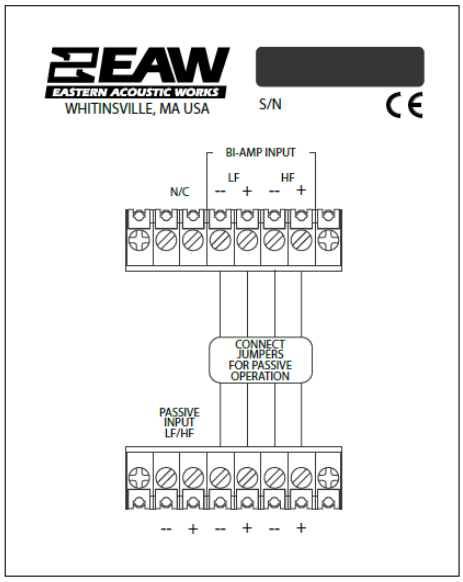


MKD800

INPUT



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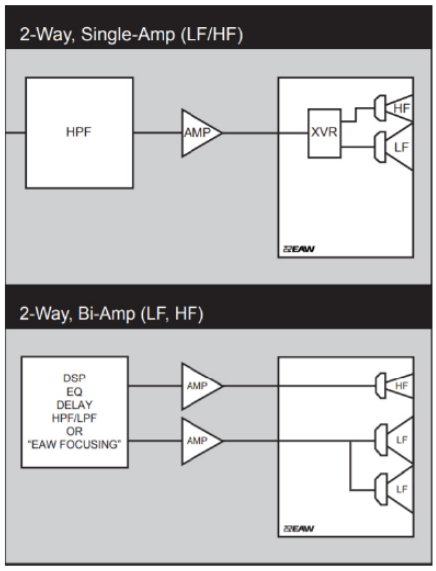
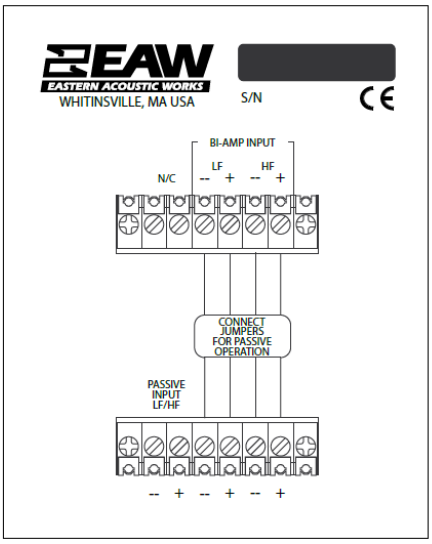


MKD1000

HPF	High Pass Filter for crossover or Recommended High Pass
LPF	Low Pass Filter for crossover
LF/MF/HF	Low Frequency / Mid Frequency / High Frequency

AMP	User Supplied Power Amplifier –or– Integral Amplifier
XVR	Passive LPFs, HPFs, and EQ integral to the loudspeaker
EAW Focusing	Digital Signal Processor capable of implementing EAW

INPUT



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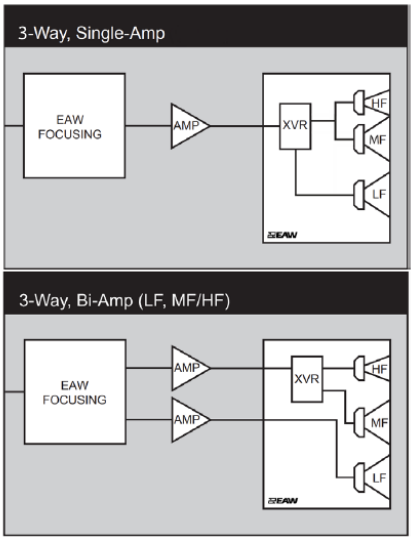
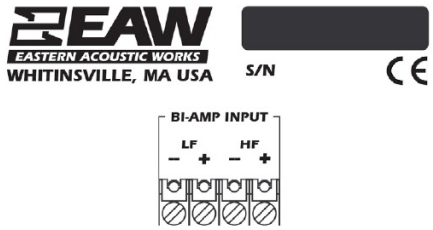


MKD1200

INPUT



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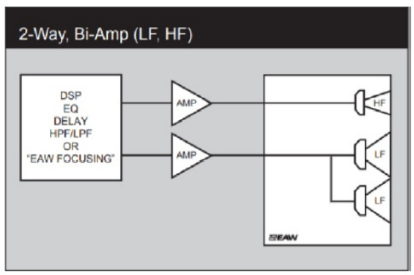


MKD1500

HPF	High Pass Filter for crossover or Recommended High Pass
LPF	Low Pass Filter for crossover
LF/MF/HF	Low Frequency / Mid Frequency / High Frequency

AMP	User Supplied Power Amplifier –or– Integral Amplifier
XVR	Passive LPFs, HPFs, and EQ integral to the loudspeaker
EAW Focusing	Digital Signal Processor capable of implementing EAW

MKD Series Recommended Systems & Amp Pairings

MKD526

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	1	–	–
UXA4403D	3	–	–	–
UXA4807D	3	–	–	–

MKD800

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

MKD1000

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	HF 2	LF 2 HF 2
UXA4807D	–	2	HF 2	LF 2 HF 2

MKD Series Recommended Systems & Amp Pairings

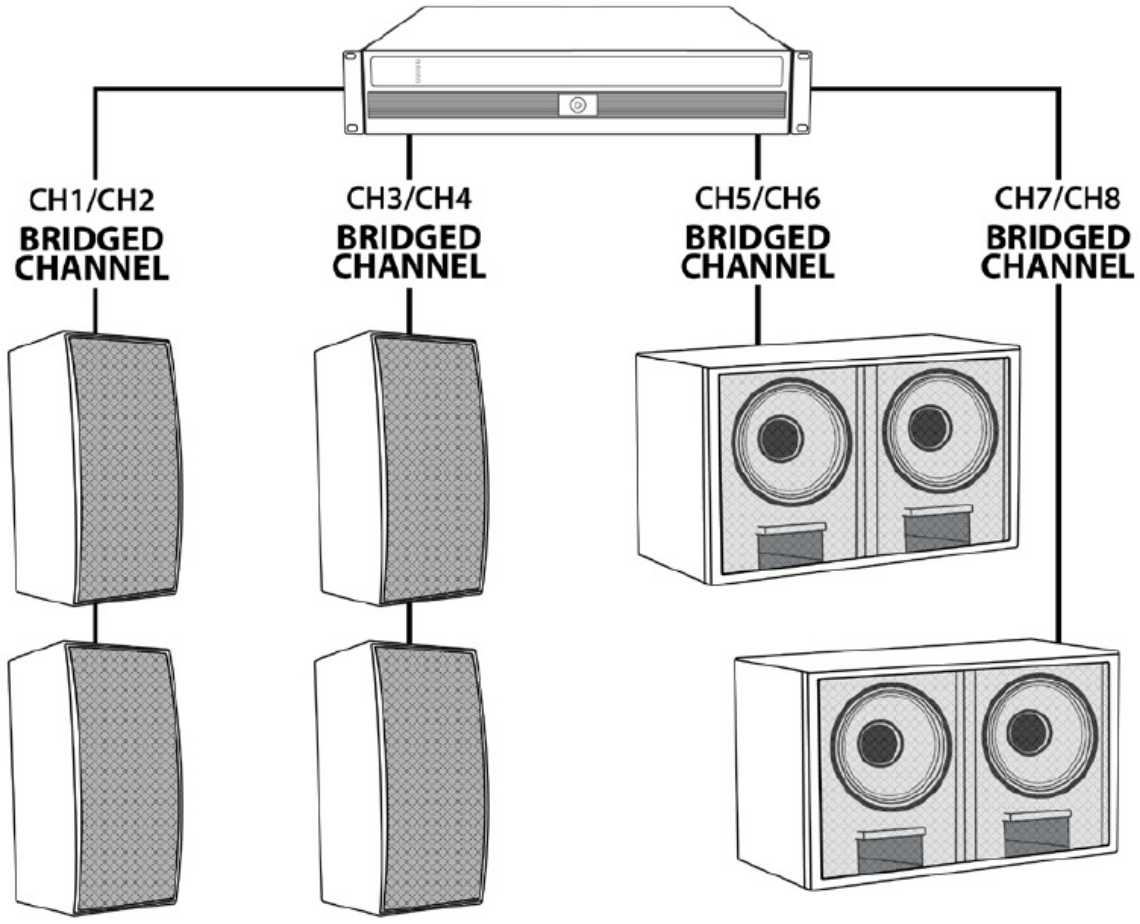
MKD1200

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	HF 2	LF 2 HF 2
UXA4807D	–	2	HF 2	LF 2 HF 2

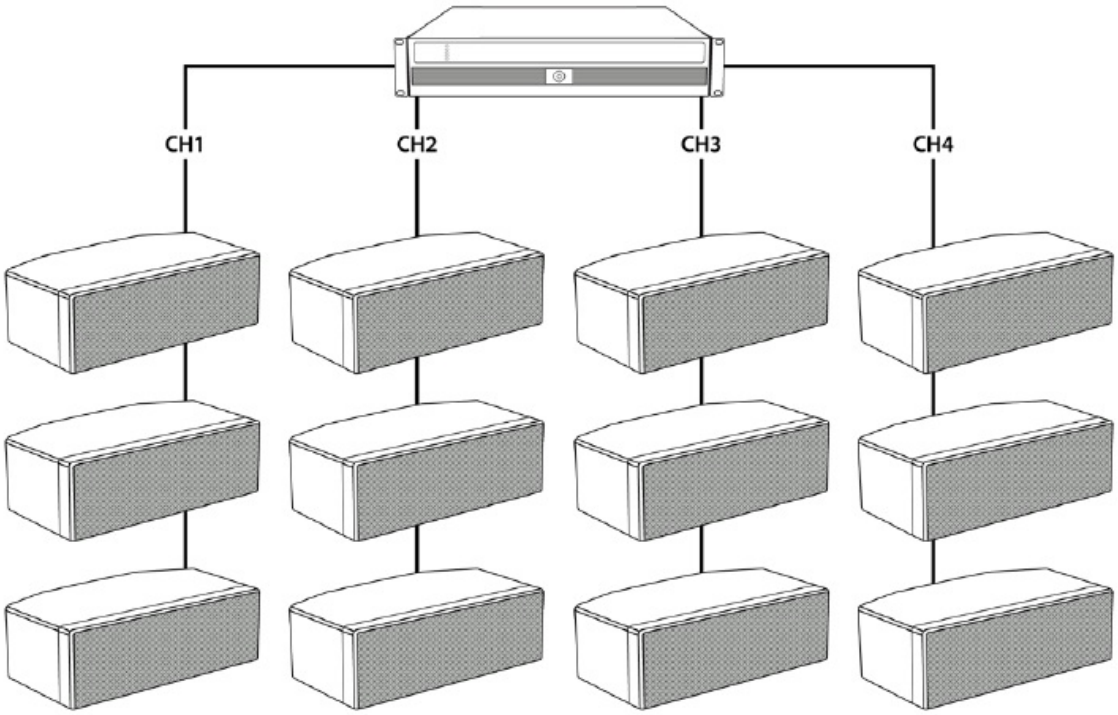
MKD1500

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	–	–	LF 1 HF 2
UXA4807D	–	–	–	LF 1 HF 2

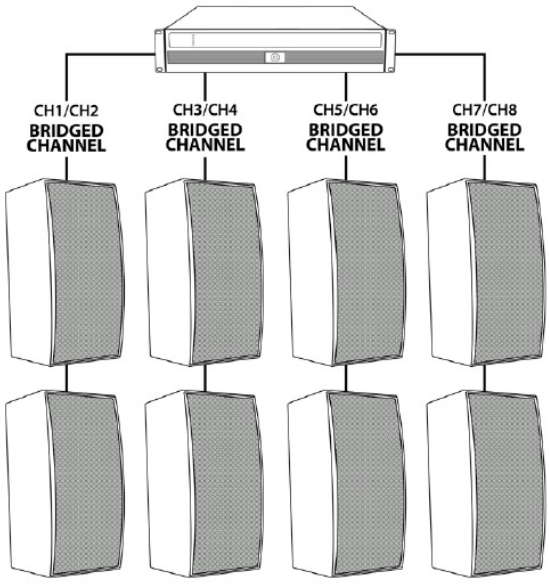
MKD1000 Single Amp w/SB528z Subwoofer (UXA4807D



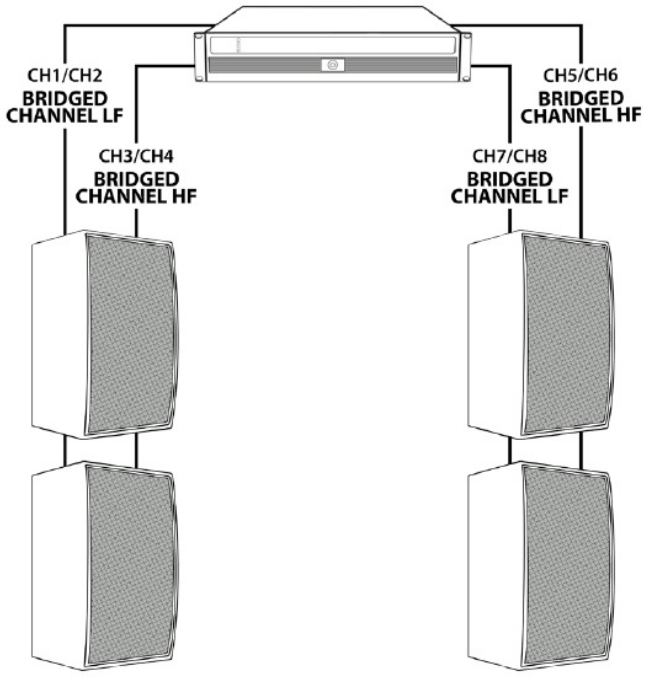
MKD526 (UXA4403D)



MKD1000 Single Amp (UXA4807D)



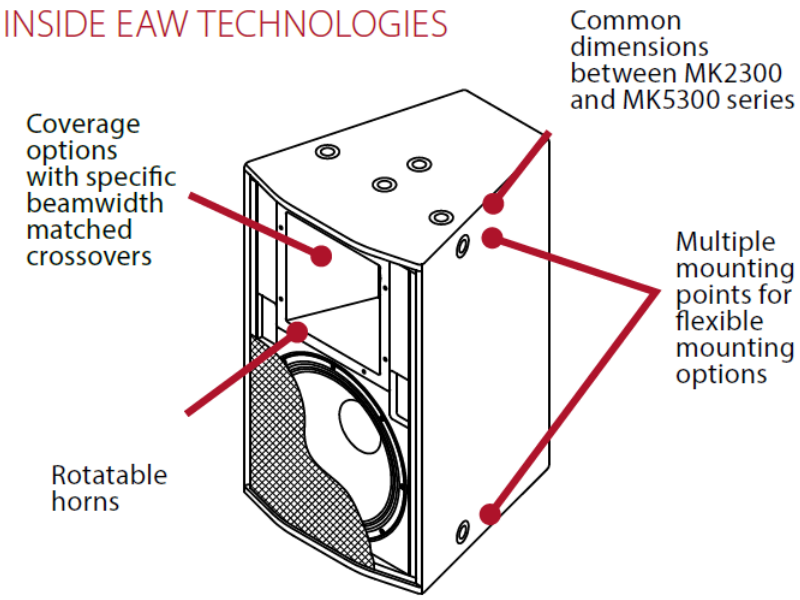
MKD1200 Single Amp (UXA4807D)

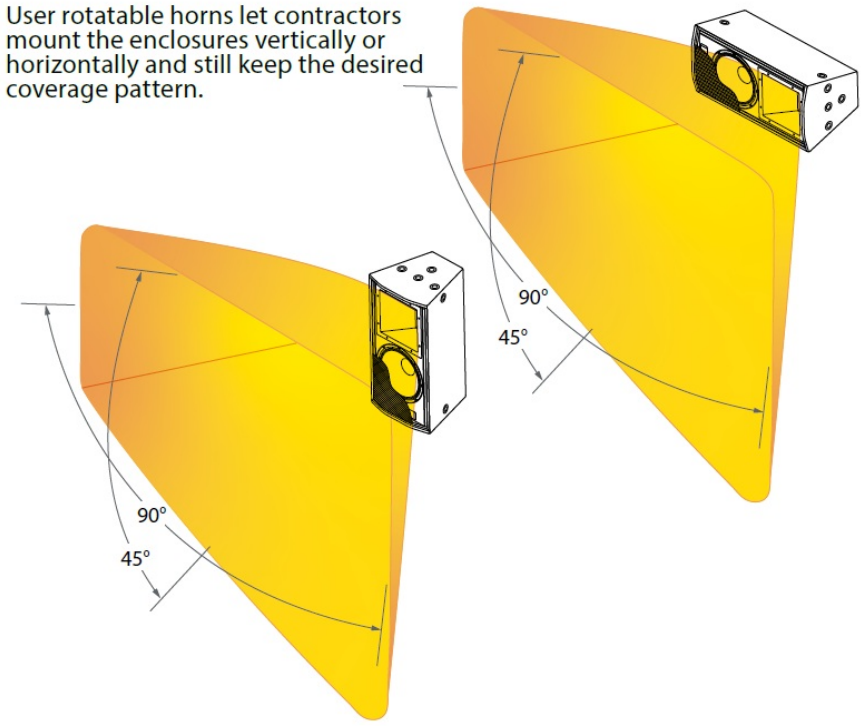


MK Series

- MK5326i ►120° x 60°
- MK5364i ►60° x 45°
- MK5366i ►60° x 60°
- MK5394i ►90° x 45°
- MK5396i ►90° x 60°
- MK5399i ►90° x 90°

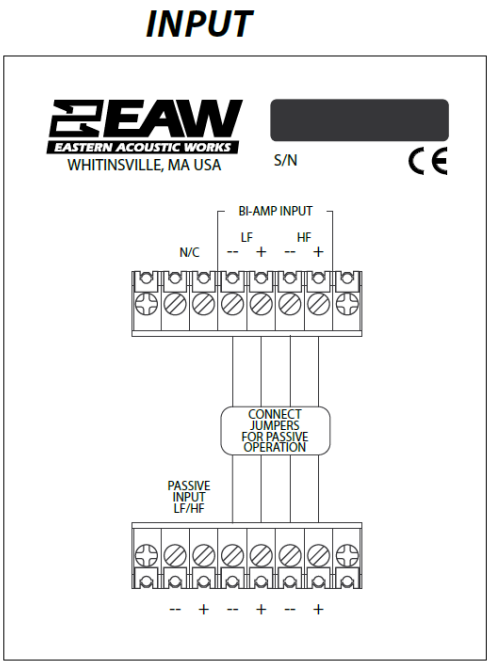
- MK2326i ►120° x 60°
- MK2364i ►60° x 45°
- MK2366i ►60° x 60°
- MK2394i ►90° x 45°
- MK2396i ►90° x 60°
- MK2399i ►90° x 90°
- MK8126i ►120° x 60°
- MK8196z ►90° x 60°

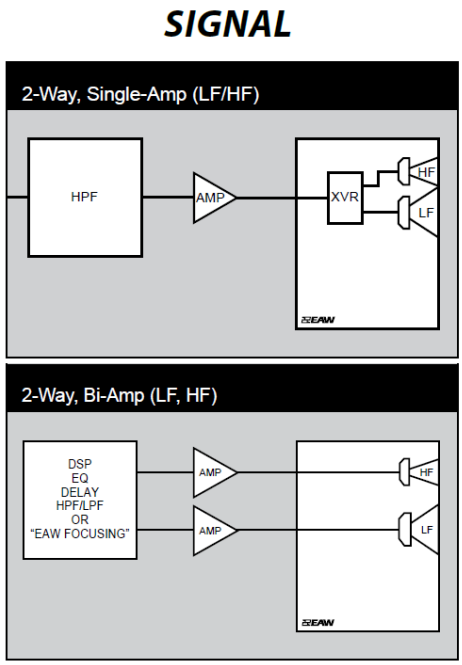




Features	Benefits
Proven track record over many years	Confidence that the system will be built to last
Wide-ranging product family with three size tiers (8", 12", 15")	Outfit an entire project with loudspeakers that share a common tonality, making tuning easier
Available in range of colors and finishes	Standard white or black for typical applications, color-matching for specific visual environments and WP for outdoors
Large-format horns and beamwidth-matched crossovers	Consistent tonality throughout the entire coverage pattern
Rotatable horns	Can be easily used for horizontal or vertical installations

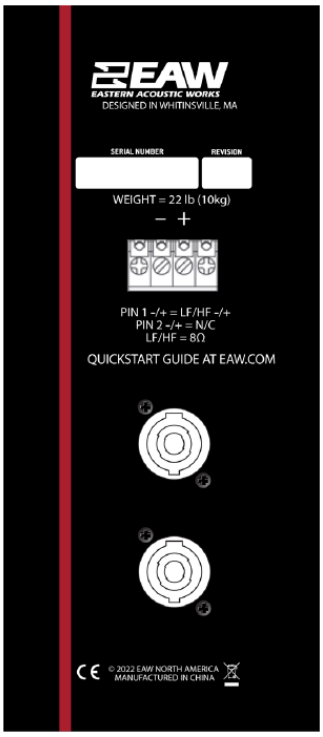
Enhanced with Greybox processing



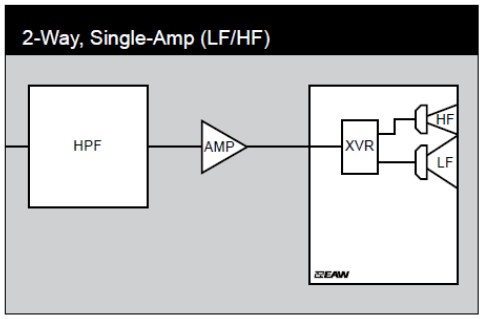


MK2300i & MK5300i

INPUT



SIGNAL



MK8100

MK Series Recommended Systems & Amp Pairings

MK8100

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	1	–	–
UXA4403D	2	–	–	–
UXA4807D	2	–	–	–

MK2300

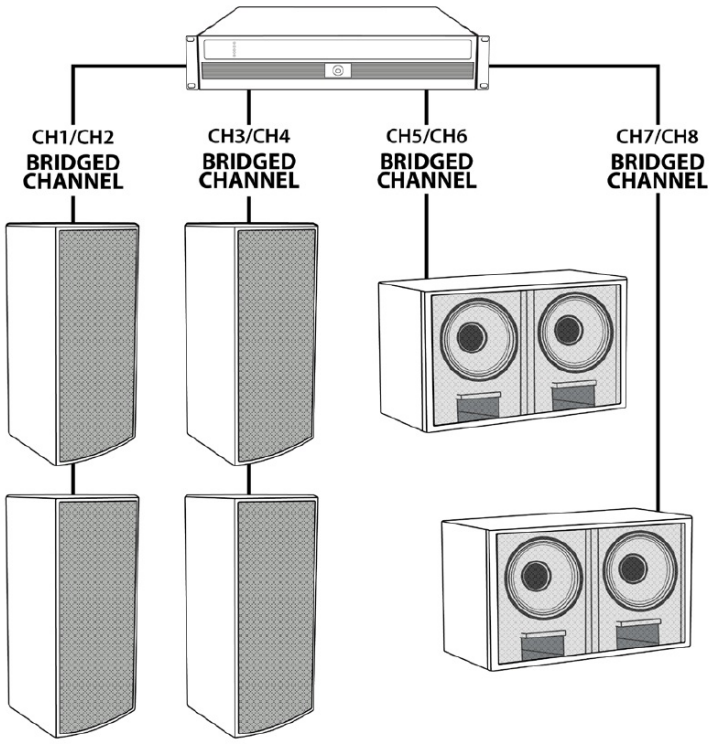
Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–

UXA4403D	–	2	HF 2	LF 2 HF 2
UXA4807D	–	2	HF 2	LF 2 HF 2

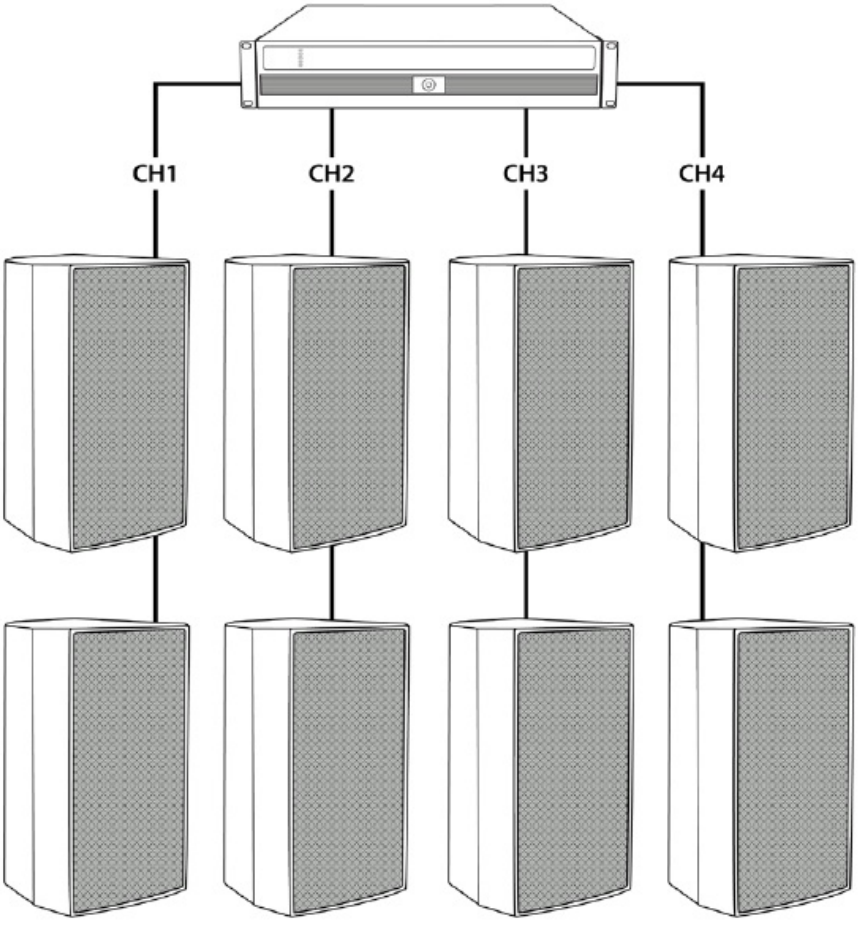
MK5300

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	HF 2	LF 2 HF 2
UXA4807D	–	2	HF 2	LF 2 HF 2

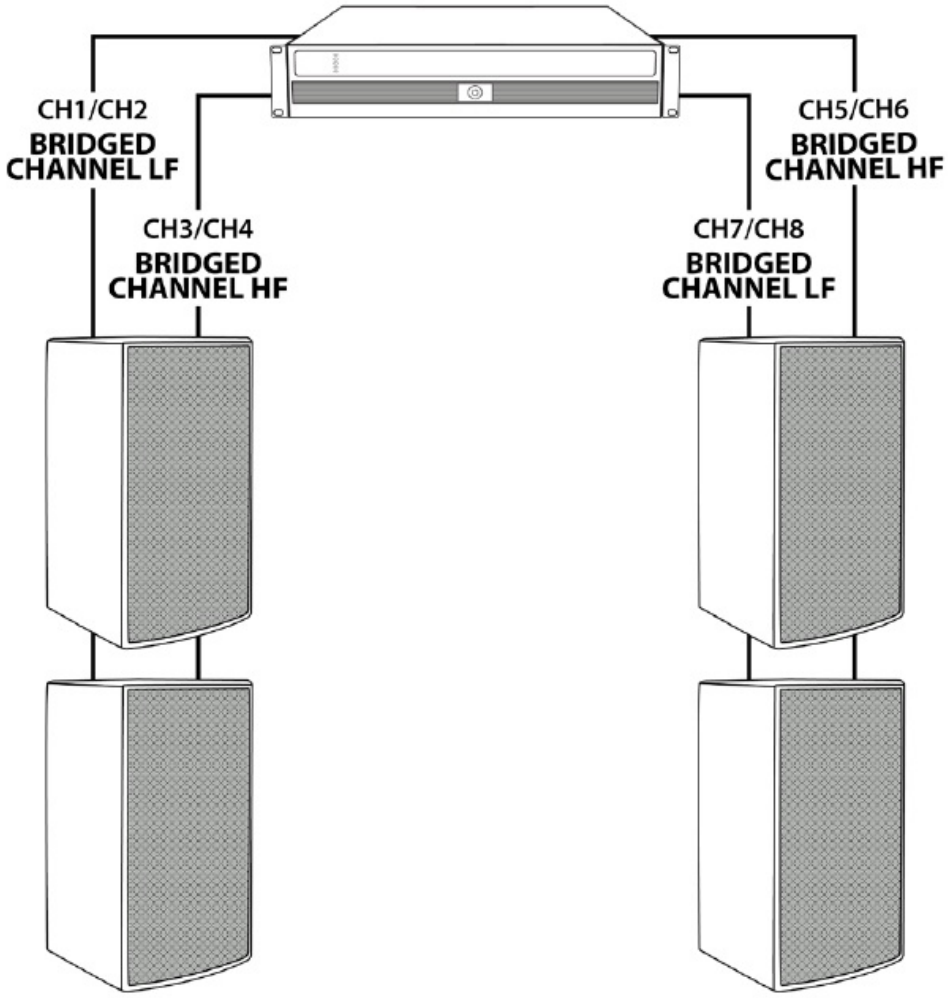
MK2300 Single Amp w/SB528z Subwoofer (UXA4807D)



MK8100 (UXA4403D)



MK5300 Bi Amp (UXA4807D)



MKC Series

MKC50 - No grill

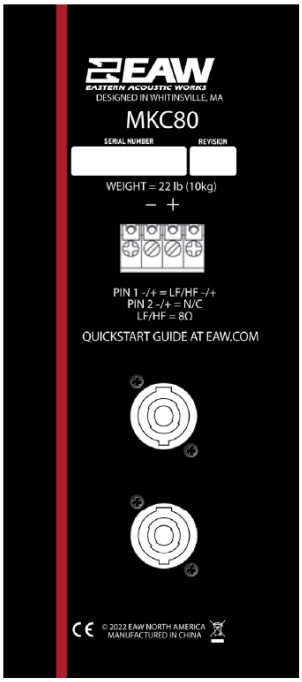
MKC80 - No grill

- Available in four models, MKC50, MKC60, MKC80, MKC120 (coaxial 5″, 6″, 8″, and 12″ respectively).
- MKC50 & MKC60 1 in Dome tweeter provides superior dispersion, fidelity and output.

- MKC80 & MKC120 Patented CSA coaxial horn provides superior control, fidelity and output.
- MKC80 & MKC120 Integrated handle and pole mount.
- MKC120 Integrated M10 mounting points.
- Inherent weather resistance for outdoor use when used under cover.
- Available WP Models for long term outdoor installations.
- Multitap transformer options provide solutions for distributed and fill systems.
- MKC Series can be deployed in either vertical or horizontal orientations.

MKC60 - No grill

INPUT



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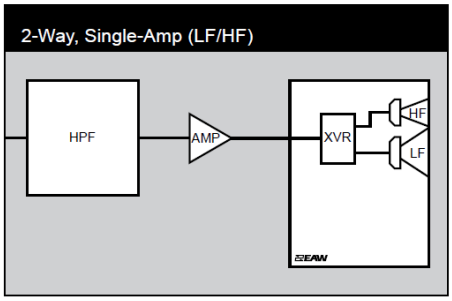
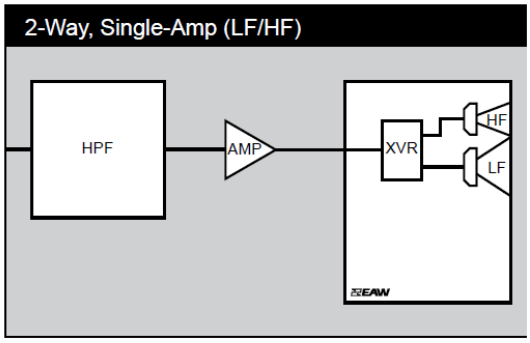


MKC80 & MKC120

INPUT

SIGNAL



MKC50 & MKC60

MKC Series Recommended Systems & Amp Pairings

MKC50

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	1	–	–	–
UXA4403D	4	–	–	–
UXA4807D	4	–	–	–

MKC60

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	1	–	–
UXA4403D	3	–	–	–

UXA4807D	3	–	–	–

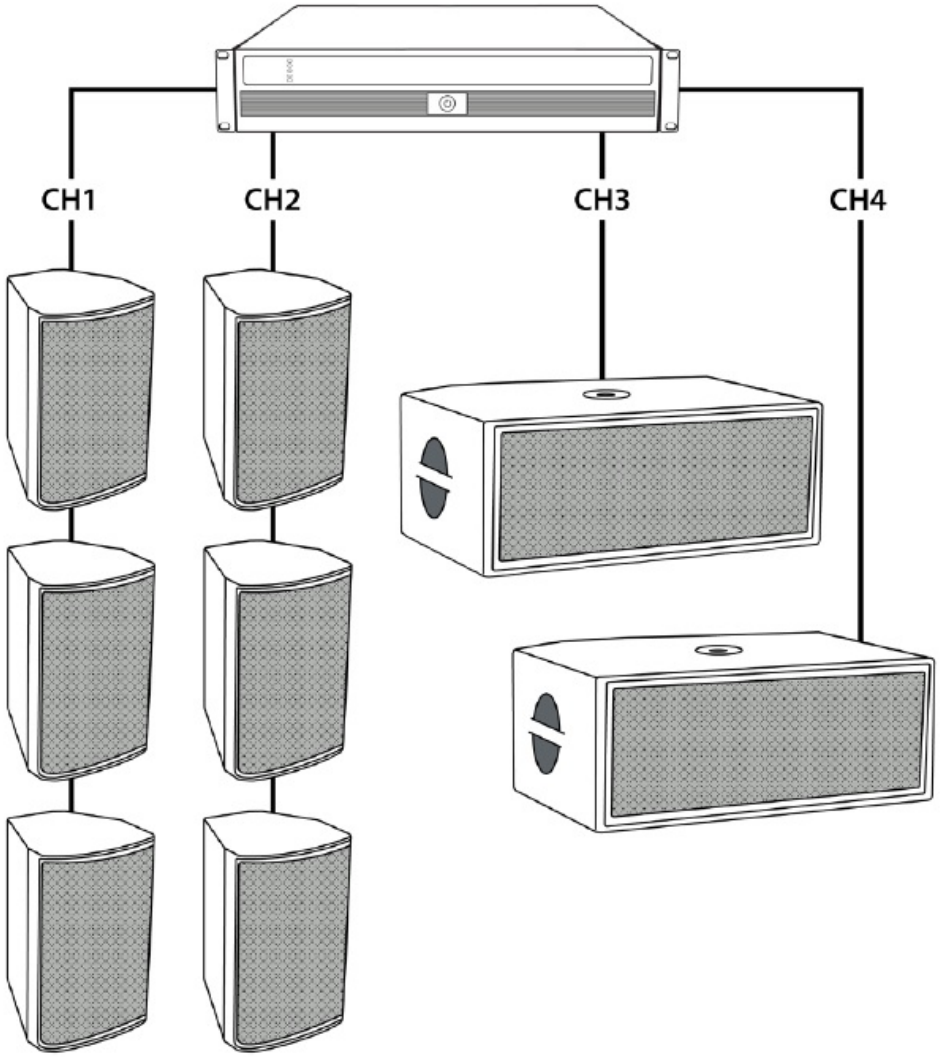
MKC80

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	3	–	–	–
UXA4807D	3	–	–	–

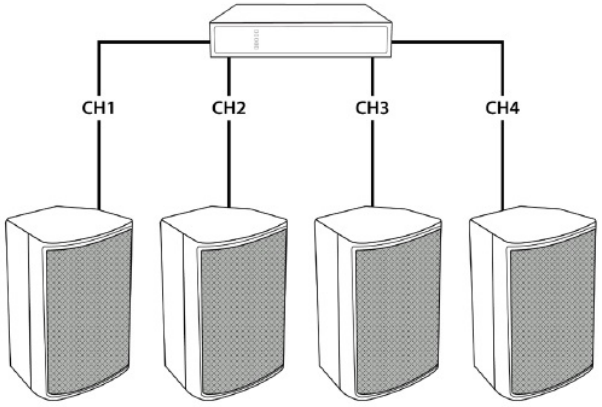
MKC120

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

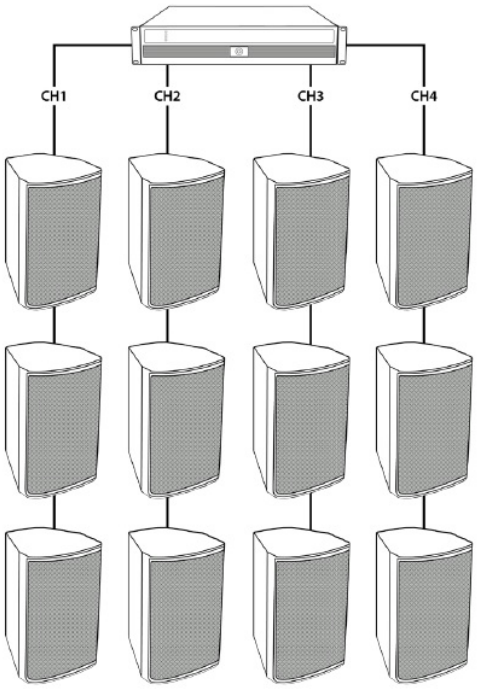
MKC60 w/SB210 Subwoofer (UXA4403D)



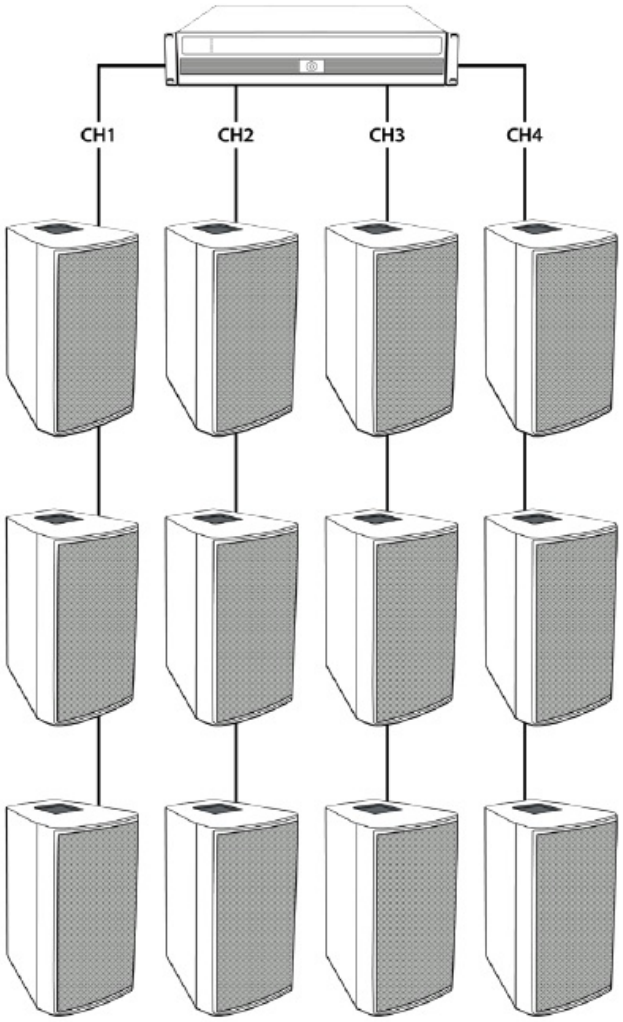
MKC50 (UXA4401)



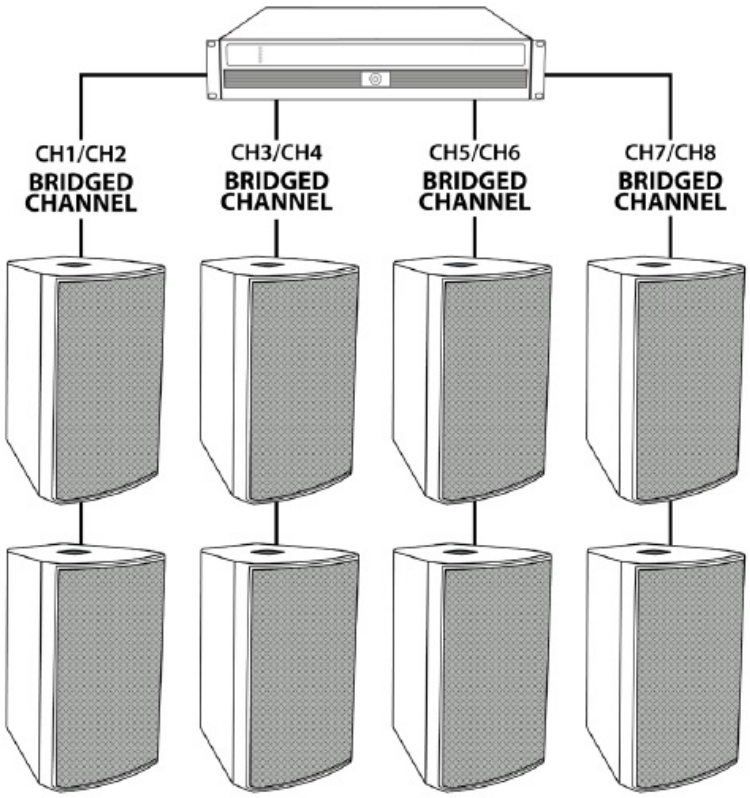
MKC60 (UXA4403D)



MKC80 (UXA4403D)



MKC120 (UXA4807D)



SB Series Subwoofers

Clockwise (starting from top left) – SB528zP, SB250zP, SB120zP, SB210

- Available models: SB120z, SB150z, SB180z, SB250z. SB528z, SB210
- Direct radiating, with optimally tuned, vented enclosures
- High output, large-format systems with proven performance
- Optimally tuned with large very low turbulence port

SB Series Recommended Systems & Amp Pairings

SB120z

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

SB150z

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

SB180z

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

SB210

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

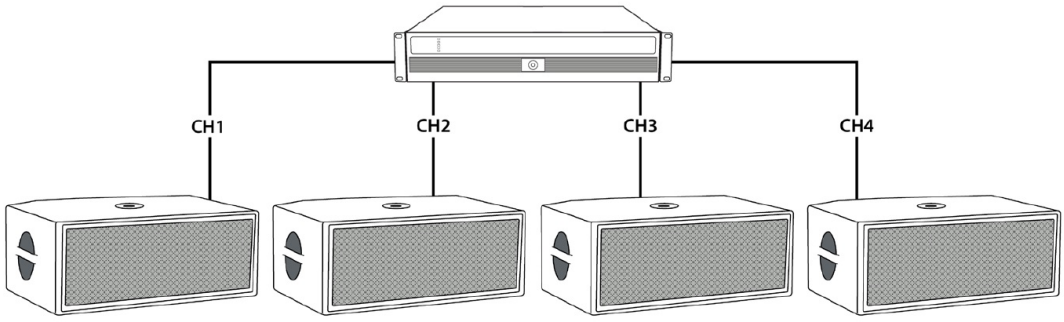
SB150z

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

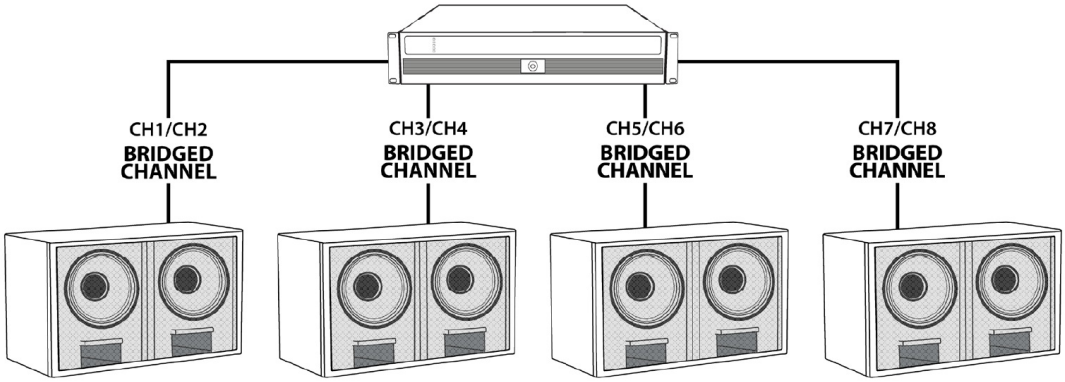
SB180z

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	–	2	–	–
UXA4807D	–	2	–	–

SB210 (UXA4403D)



SB528z (UXA4807D)



CIS & LS Series

From left to right - CIS400, LS432i, LS432i white, LS832i

- CIS series available models: CIS300, CIS400
- LS series available models: LS432i, LS832i

CIS/LS Series Recommended Systems & Amp Pairings

LS432i

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–

UXA4403D	4	–	–	–
UXA4807D	4	–	–	–

LS832i

Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	–	–	–	–
UXA4403D	3	–	–	–
UXA4807D	3	–	–	–

CIS300

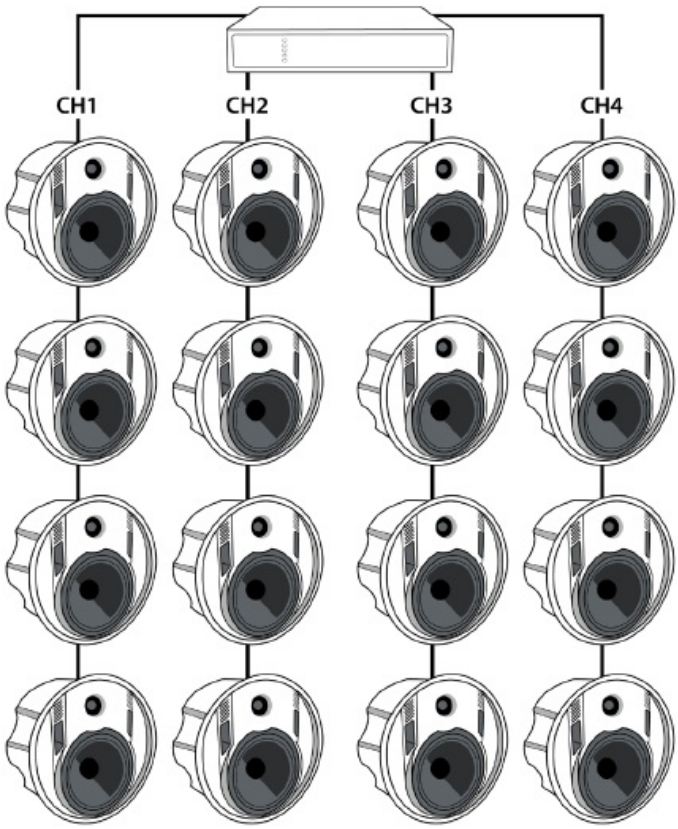
Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	4	–	–	–
UXA4403D	–	–	–	–
UXA4807D	–	–	–	–

CIS400

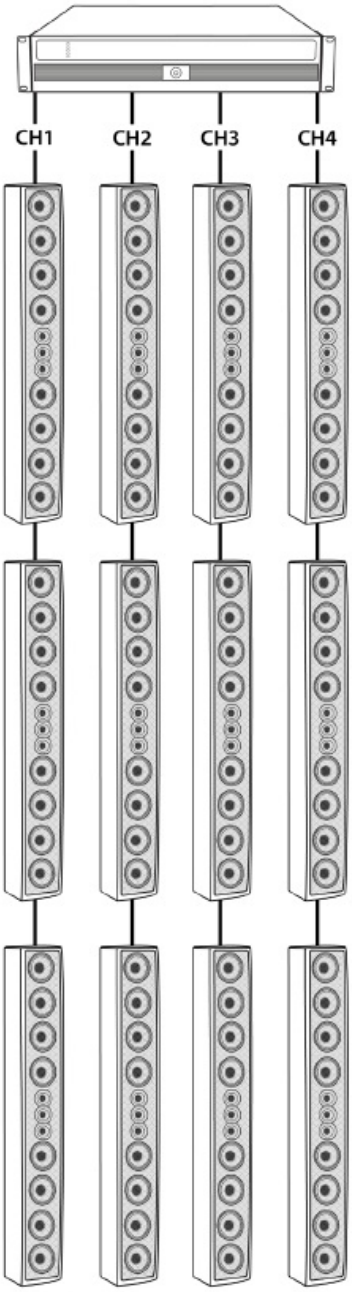
Amplifier	**Single Ended** Single Amp Speaker per ch	**Bridge Mode** Single Amp Speaker per ch	**Single Ended** Bi Amp Speaker per ch	**Bridge Mode** Bi Amp Speaker per ch
UXA4401(D)	4	–	–	–

UXA4403D	–	–	–	–
UXA4807D	–	–	–	–

CIS400 (UXA4401)



LS482i (UXA4403D)



Warranty

These EAW products were designed and engineered at our headquarters in Whitinsville, MA USA and go through multiple quality checks during manufacturing. We guarantee our loudspeakers against defects in workmanship, materials and against malfunctions for a period of 6 years from date of delivery. Terms and conditions apply. Download the complete warranty policy at www.eaw.com/warranty

Product Damaged in Transport? Contact the freight carrier immediately and note concealed shipping damage. Then contact EAW for replacement.

Scan code to contact EAW

Eastern Acoustic Works
19 National Drive | Franklin, MA 02038 | USA

- tel 800 992 5013
- +1 508 234 6158
- www.eaw.com

FAQ

- **Q: How can I obtain the EAW Resolution software?**
  A: You can download the latest version of EAW Resolution from www.eaw.com.

- **Q: What tasks are involved in using the loudspeaker?**
  A: Tasks include system design, suspension point installation, connection to processors/power amps, system setup, training, and maintenance.

Documents / Resources

	EAW QX Series Installed System Applications [pdf] Installation Guide XA, QX Series, MKD Series, MK Series, MKC Series, SB Series, CIS LS Series, QX Series Installed System Applications, QX Series, Installed System Applications, System Applications, Applications

References

- User Manual

EAW

Applications, CIS LS Series, EAW, Installed System Applications, Mk Series, MKC Series, MKD Series, QX Series, QX Series Installed System Applications, SB Series, System Applications, XA

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