

QSC

application guide

DJ/Mobile Entertainment **AET** Application Engineering Team

k.2 series loudspeakers

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SINCE THEIR INTRODUCTION IN 2009, K FAMILY LOUDSPEAKERS HAVE BECOME THE GO-TO FAVORITE PRODUCT FOR PROFESSIONAL AUDIO USERS MORE THAN A MILLION TIMES OVER. CONTINUING THAT TRADITION, THE QSC K.2 SERIES IS QUITE SIMPLY THE “NEXT STANDARD” IN POWERED LOUDSPEAKERS.

THIS APPLICATION GUIDE IS DESIGNED TO OFFER YOU A FEW EXAMPLES OF HOW TO UTILIZE THE K.2 SERIES IN COMMON DJ AND MOBILE ENTERTAINER SITUATIONS. WHILE EACH INDIVIDUAL’S OR CLUB’S NEEDS MAY VARY, THIS GUIDE SHOULD SERVE AS A GOOD STARTING POINT ON HOW TO CONFIGURE AND DEPLOY THESE PRODUCTS IN YOUR APPLICATION. THERE ARE ALSO MANY OTHER ASSETS AVAILABLE TO YOU ONLINE AT qsc.com INCLUDING VIDEOS, TECHNICAL DOCUMENTS AND MORE TO HELP YOU GET THE MOST FROM YOUR QSC PURCHASE. WE HOPE YOU TAKE ADVANTAGE OF EVERYTHING AVAILABLE AND WISH YOU A MOST SUCCESSFUL AND ENJOYABLE EXPERIENCE WITH YOUR K.2 SERIES.

ONE FINAL NOTE: DON’T FORGET TO REGISTER YOUR K.2 SERIES ONLINE AT qsc.com TO RECEIVE OUR FREE GLOBAL 6-YEAR EXTENDED WARRANTY. WHILE YOU’LL PROBABLY NEVER USE IT, IT ADDS AN ADDITIONAL LEVEL OF CONFIDENCE THAT YOUR PURCHASE WILL DELIVER LASTING PERFORMANCE NIGHT AFTER NIGHT, YEAR AFTER YEAR.



WHAT'S NEW

Let's look at the inputs on the K.2 loudspeakers. They're still somewhat familiar to the K user, but updated a bit. As with the original K series, Input A again can be mic or line level, but Input B now can be either a line level input or a high-Z one suitable for musical instruments that have passive magnetic or piezo pickups. That's right—the K.2 Series loudspeakers can be used as guitar or bass combo amp, and they won't load down the instrument like a regular mic or line input would. Input C is a stereo-summed-to-mono channel with a 3.5 mm stereo jack, suitable for playback from portable digital audio devices such as phones, MP3 players, etc.

The three inputs each have their own gain knob and get mixed down to provide signal for the digital signal processing (DSP) and class D amplification stages. A line-level summed output provides a means to send the mixed signal on to other loudspeakers or other devices.

The biggest advance is in the DSP capabilities of the K.2 loudspeakers. In addition to voicing and protection duties, the K.2 Series DSP offers an array of user-configurable parameters that include EQ, delay, and presets. Yes, presets.

K.2 loudspeakers have 11 presets so you can quickly dial in a collection of settings tailored to a certain application.

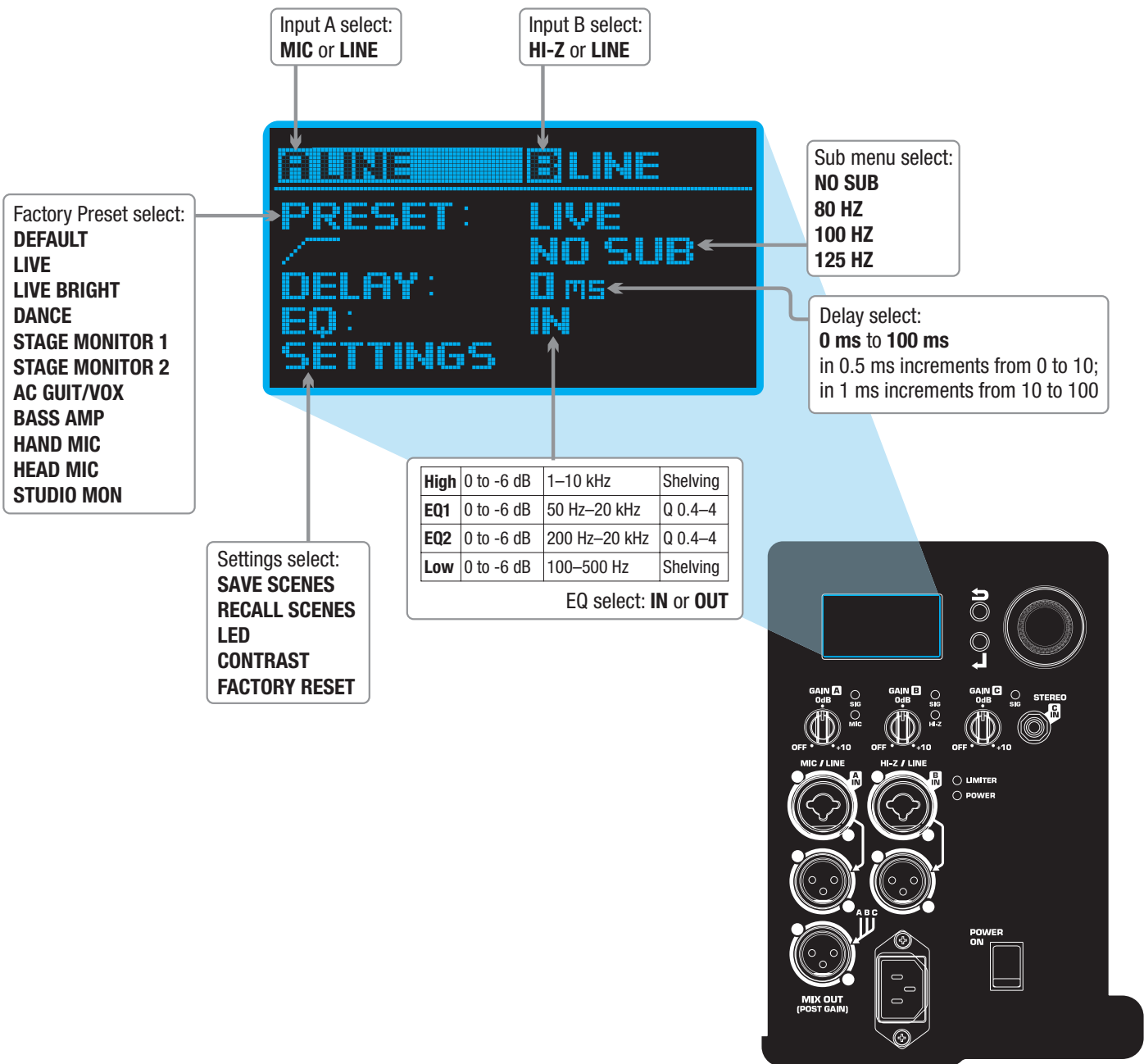
DEFAULT	The standard voicing of the K.2 speaker
LIVE	A voicing for live music reinforcement that lowers and balances frequencies that can be prone to feedback in a live mix.
LIVE BRIGHT	A voicing for live music reinforcement that offers slightly more high end than the "Live" voicing.
* DANCE	A voicing that focuses on high-end clarity and low end extension, primarily for Dance/Pop/Hip Hop/etc music.
* STAGE MONITOR 1	A voicing for using a stage monitor with a microphone that lowers and balances frequencies that can be prone to feedback in a monitor mix.
STAGE MONITOR 2	A voicing for using a stage monitor without a microphone (such as a drum or keyboard monitor) that offers more low frequency extension than Stage Monitor 1.
ACOUSTIC GUITAR/VOX	A voicing for a vocal mic plugged into input A, and an acoustic guitar plugged into channel B that lowers and balances frequencies prone to feedback between those two input sources.
BASS AMP	A voicing optimized to provide performance similar to that of a combo bass amplifier.
* HAND MIC	A voicing that lowers and balances frequencies that can be prone to feedback with common handheld dynamic microphones when used without a mixer.
HEAD MIC	A voicing that lowers and balances frequencies that can be prone to feedback with common headset microphones when used without a mixer.
* STUDIO MON	A voicing that provides a more balanced overall speaker response with deeper extension to be used as a nearfield or studio monitor for mixing.

* PRESETS FEATURED IN THIS APP GUIDE

The K.2 Series loudspeakers also offer four bands of user-adjustable EQ:

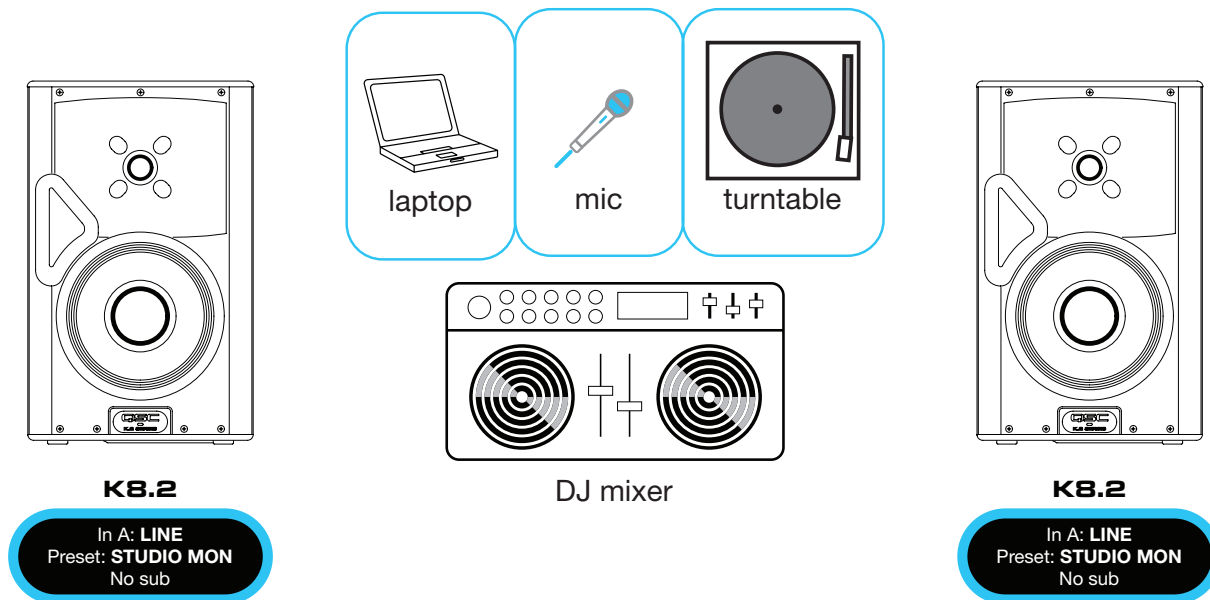
HIGH	0 to -6 dB	1–10 kHz	Shelving
EQ1	0 to -6 dB	50 Hz–20 kHz	Q 0.4–4
EQ2	0 to -6 dB	200 Hz–20 kHz	Q 0.4–4
LOW	0 to -6 dB	100–500 Hz	Shelving

Up to 100 ms of delay.
80, 100, or 125 Hz high-pass filtering for use with a subwoofer.



DJ HOME STUDIO

A home studio is a DJ's lair for creating mixes, remixes, podcasts, and more. A good set of studio monitors is crucial for precision listening—so you can know exactly what you're laying down. A pair of K8.2 loudspeakers set to the Studio Monitor preset are ideal for this use.



Tech Requirements:

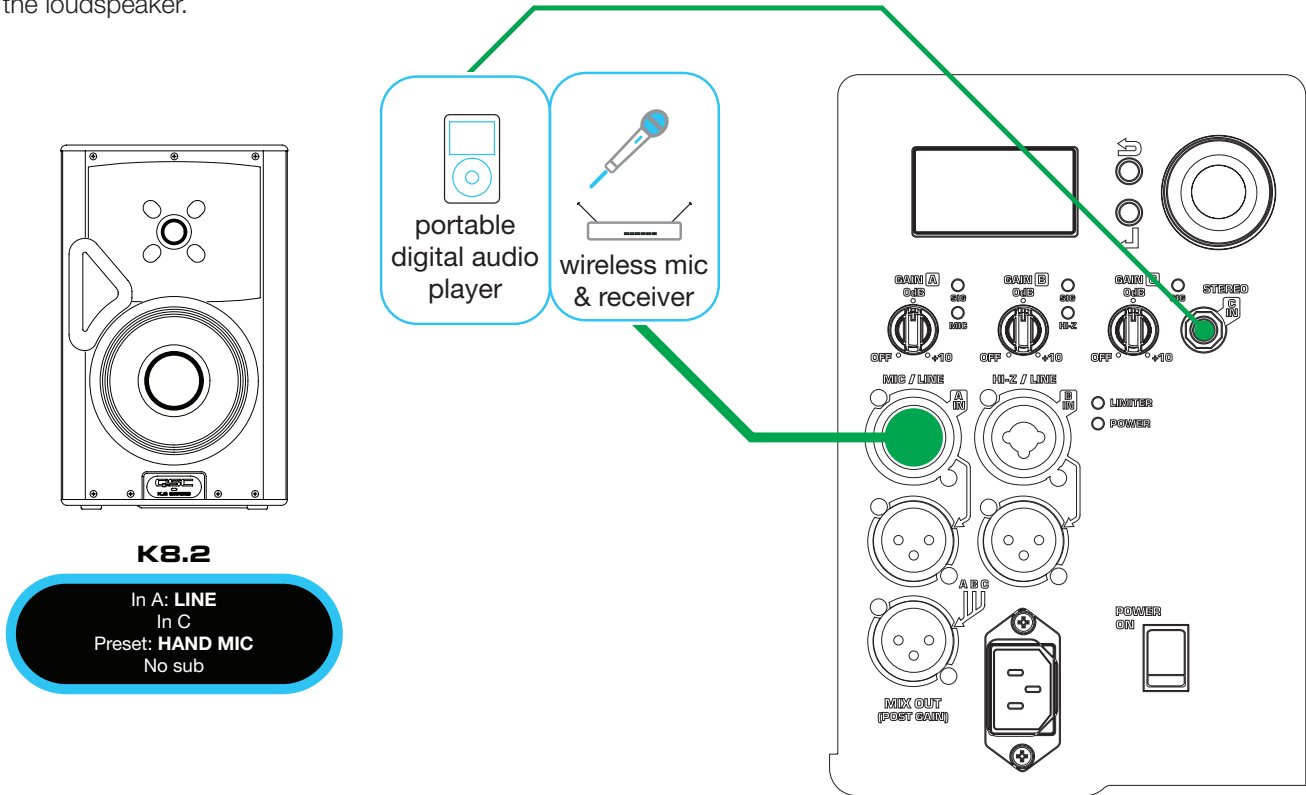
A turntable and a laptop computer into a DJ mixer
Left and right monitor outputs from the mixer into a stereo pair of monitors

Mains:

Two K8.2 loudspeakers [preset Studio Monitor; no sub]

COCKTAIL RECEPTION

The organizer of a cocktail reception requests some background music along with a system for making announcements, speeches, etc. A single K8.2 loudspeaker on a stand fits the bill, along with a handheld wireless mic system and a portable digital audio player as the music source. The wireless mic receiver plugs into the loudspeaker's Input A and the audio player directly into the 3.5 mm stereo jack at Input C. Balance the sources and adjust the overall volume using gain controls A and C on the loudspeaker.



Tech Requirements:

Wireless mic for announcements

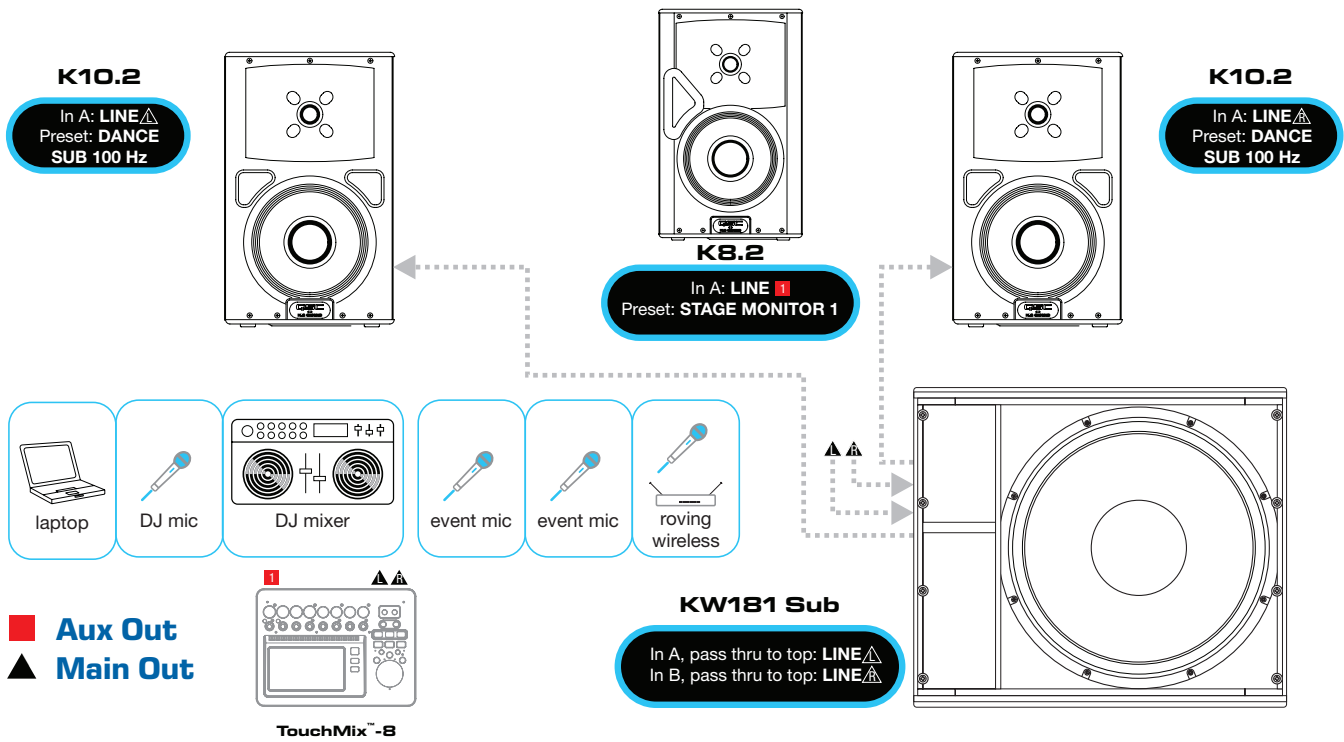
Portable digital audio player (e.g., iPod, MP3 player, et al), typically with 3.5 mm output jack

Mains:

One K8.2 loudspeaker [preset Hand mic; no sub]

PARTY/EVENT

To provide music and entertainment for events, the DJ relies on a pair of K10.2 tops set to the Dance preset, in tandem with a KW181 subwoofer. The DJ's playback monitor is a K8.2 loudspeaker. A laptop and CD audio sources for music and tracks are mixed into a DJ mixer and then into a portable digital mixer, which also mixes in an announcing mic, two event mics, and a roving wireless mic.



Tech requirements:

Laptop and CD sources through a DJ mixer; DJ mixer outputs and announcing mic into a portable digital mixer. Digital mixer main outputs drive the sub and two K10.2 mains. The mixer's Aux 1 output feeds the playback monitor.

Mains:

Two K10.2 loudspeakers [preset Dance; sub 100 Hz]

One KW181 subwoofer [Fixed low-pass at 100 Hz]

Monitors:

One K8.2 loudspeaker [preset Stage Monitor 1]

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