

# QSC®

## application guide

Solo/Duo Musicians **AET** Application Engineering Team

K.2 SERIES LOUDSPEAKERS

Rev A May 2017



WORLD of K

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 SOLO AND DUO MUSICIAN SITUATIONS. WHILE EACH INDIVIDUAL OR GROUP’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](https://www.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](https://www.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.](#)

<b>DEFAULT</b>	The standard voicing of the K.2 speaker
<b>* LIVE</b>	A voicing for live music reinforcement that lowers and balances frequencies that can be prone to feedback in a live mix.
<b>LIVE BRIGHT</b>	A voicing for live music reinforcement that offers slightly more high end than the "Live" voicing.
<b>DANCE</b>	A voicing that focuses on high-end clarity and low end extension, primarily for Dance/Pop/Hip Hop/etc music.
<b>* STAGE MONITOR 1</b>	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.
<b>STAGE MONITOR 2</b>	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.
<b>* ACOUSTIC GUITAR/VOX</b>	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.
<b>BASS AMP</b>	A voicing optimized to provide performance similar to that of a combo bass amplifier.
<b>HAND MIC</b>	A voicing that lowers and balances frequencies that can be prone to feedback with common handheld dynamic microphones when used without a mixer.
<b>HEAD MIC</b>	A voicing that lowers and balances frequencies that can be prone to feedback with common headset microphones when used without a mixer.
<b>STUDIO MON</b>	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:

<b>HIGH</b>	0 to -6 dB	1–10 kHz	Shelving
<b>EQ1</b>	0 to -6 dB	50 Hz–20 kHz	Q 0.4-4
<b>EQ2</b>	0 to -6 dB	200 Hz–20 kHz	Q 0.4-4
<b>LOW</b>	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.

The diagram illustrates the control panel's menu structure. A central screen displays the following information:

- Input A select:** MIC or LINE
- Input B select:** HI-Z or LINE
- Factory Preset select:** DEFAULT, LIVE, LIVE BRIGHT, DANCE, STAGE MONITOR 1, STAGE MONITOR 2, AC GUIT/VOX, BASS AMP, HAND MIC, HEAD MIC, STUDIO MON
- Sub menu select:** NO SUB, 80 HZ, 100 HZ, 125 HZ
- Delay select:** 0 ms to 100 ms (0-10 ms in 0.5 ms increments, 10-100 ms in 1 ms increments)
- EQ select:** IN or OUT
- Settings select:** SAVE SCENES, RECALL SCENES, LED, CONTRAST, FACTORY RESET

The physical control panel includes the following controls:

- Gain Controls:** GAIN A (0dB), GAIN B (0dB), GAIN C (0dB) with switches for SRS, MIC, HI-Z, and STEREO.
- Input Selectors:** MIC / LINE, HI-Z / LINE, A, B, C.
- Limiters:** LIMITER, POWER.
- Output:** MIX OUT (POST GAIN).
- Power:** POWER ON.

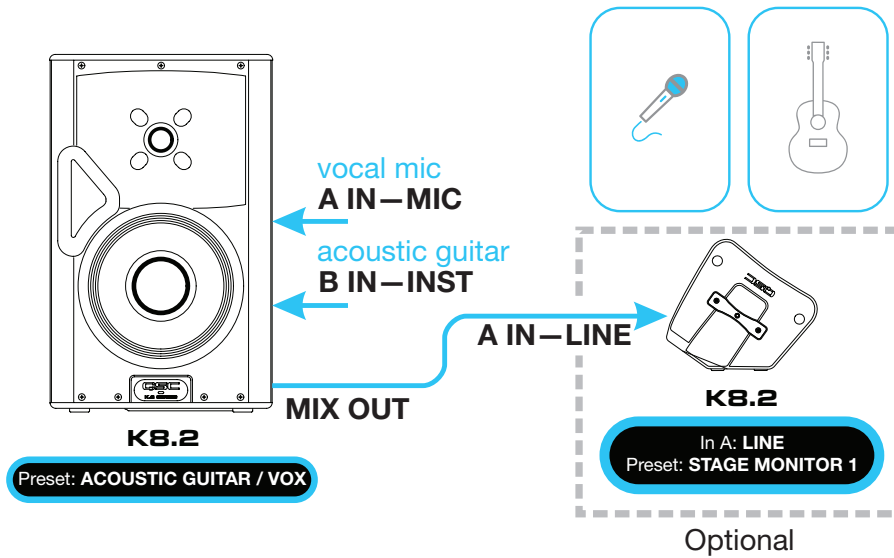
<b>High</b>	0 to -6 dB	1–10 kHz	Shelving
<b>EQ1</b>	0 to -6 dB	50 Hz–20 kHz	Q 0.4–4
<b>EQ2</b>	0 to -6 dB	200 Hz–20 kHz	Q 0.4–4
<b>Low</b>	0 to -6 dB	100–500 Hz	Shelving

# SOLO PERFORMER

## BUSKING / COCKTAIL PARTY GIG

A solo singer/instrumentalist can make use of the mixer built into each K.2 loudspeaker. For a small gig busking or playing a cocktail party this performer uses a single K8.2, plugging the vocal mic into Input A and the acoustic guitar's piezo pickup system into Input B, plus another K8.2 as an optional small wedge monitor. If AC mains power is unavailable, the very low current draw of the loudspeaker makes it possible to run for a few hours from a suitable battery and inverter system.

The Acoustic Guitar / Vox preset is optimized for using a vocal mic on Input A and an acoustic guitar with a piezo pickup on Input B.



## TECH REQUIREMENTS:

One vocal mic

One acoustic guitar (direct in)

### Mains:

One K8.2 loudspeaker [preset Acoustic Guitar / Vox; no sub]

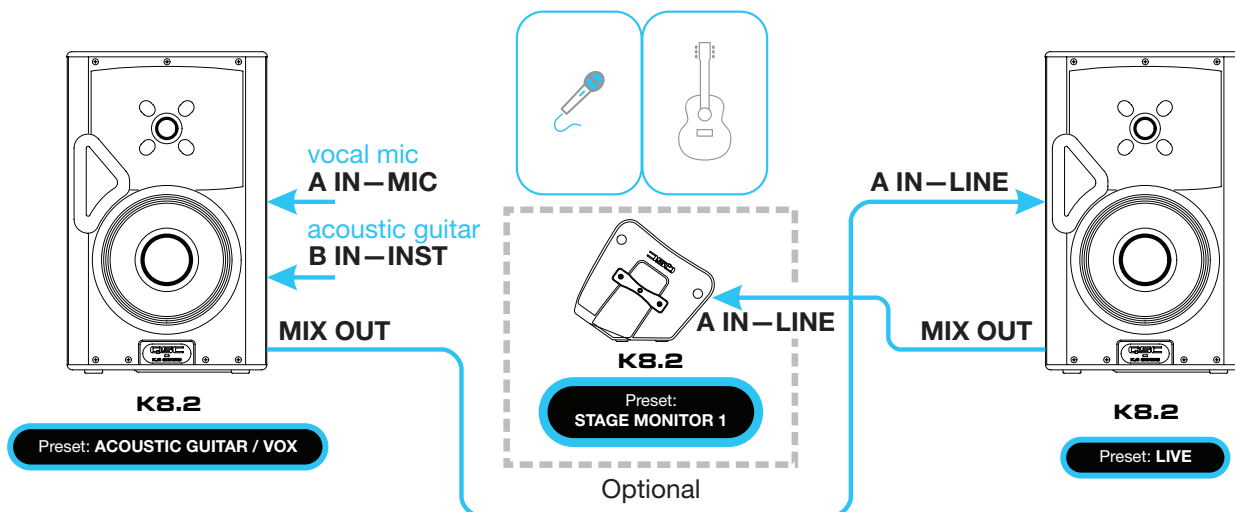
### Monitor (optional):

One K8.2 loudspeaker [preset Stage Monitor 1]

# SOLO PERFORMER

## COFFEEHOUSE GIG / HOUSE CONCERT

For this gig the performer brings two K8.2 loudspeakers to place on stands as mains to reach the audience. The acoustic guitar and vocal mic mix on one of the main loudspeakers; its MIX OUT signal feeds the opposite loudspeaker. And then that loudspeaker's MIX OUT signal feeds the optional third K8.2, which is the monitor.



## TECH REQUIREMENTS:

- One vocal mic
- One acoustic guitar (direct in)

### Mains:

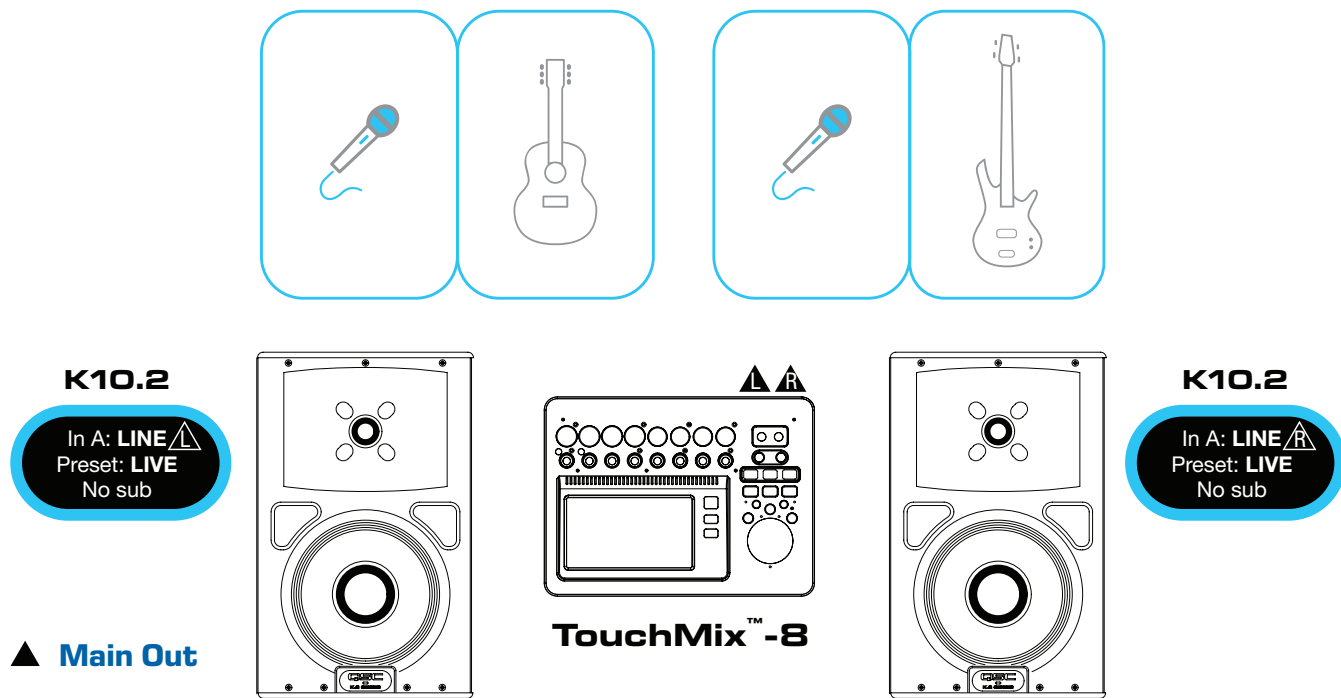
- One K8.2 loudspeaker [preset Acoustic Guitar / Vox; no sub]
- One K8.2 loudspeaker [preset Live; no sub]

### Monitor (optional):

- One K8.2 loudspeaker [preset Stage Monitor 1]

## DUO: GUITAR, BASS, & VOCALS

This guitar/bass duo both sing. Their system consists of a small digital mixer to combine the two vocal mics plus the guitar and bass fed through DI boxes. The mixer's main outputs feed the two K10.2 loudspeakers serving as mains.



### TECH REQUIREMENTS:

- Two vocal mics
- One acoustic guitar (direct in)
- One electric bass (direct in)
- Digital mixer

#### Mains:

- Two K10.2 loudspeakers [preset Live; no sub]

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**6 YEAR WARRANTY** | with Product Registration