QSC

application guide

Solo/Duo Musicians AET Application Engineering Team

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 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.

6 YEAR WARRANTY | with Product Registration

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.

Input A select:
MIC or **LINE**

Input B select:
HI-Z or **LINE**

Sub menu select:
NO SUB
80 HZ
100 HZ
125 HZ

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

Delay select:
0 ms to **100 ms**
in 0.5 ms increments from 0 to 10;
in 1 ms increments from 10 to 100

A LINE   B LINE

PRESET: LIVE
             NO SUB
DELAY: 0 ms
EQ: IN
SETTINGS

Settings select:
SAVE SCENES
RECALL SCENES
LED
CONTRAST
FACTORY RESET

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

EQ select: **IN** or **OUT**

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.
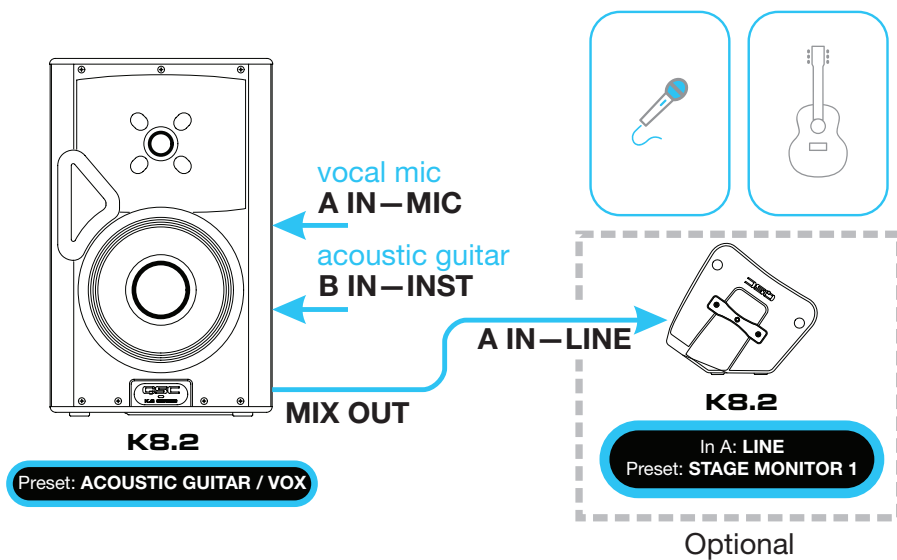
vocal mic
A IN—MIC

acoustic guitar
B IN—INST

A IN—LINE

MIX OUT

K8.2

Preset: **ACOUSTIC GUITAR / VOX**

K8.2

In A: **LINE**
Preset: **STAGE MONITOR 1**

Optional

TECH REQUIREMENTS:

One vocal mic
One acoustic guitar (direct in)

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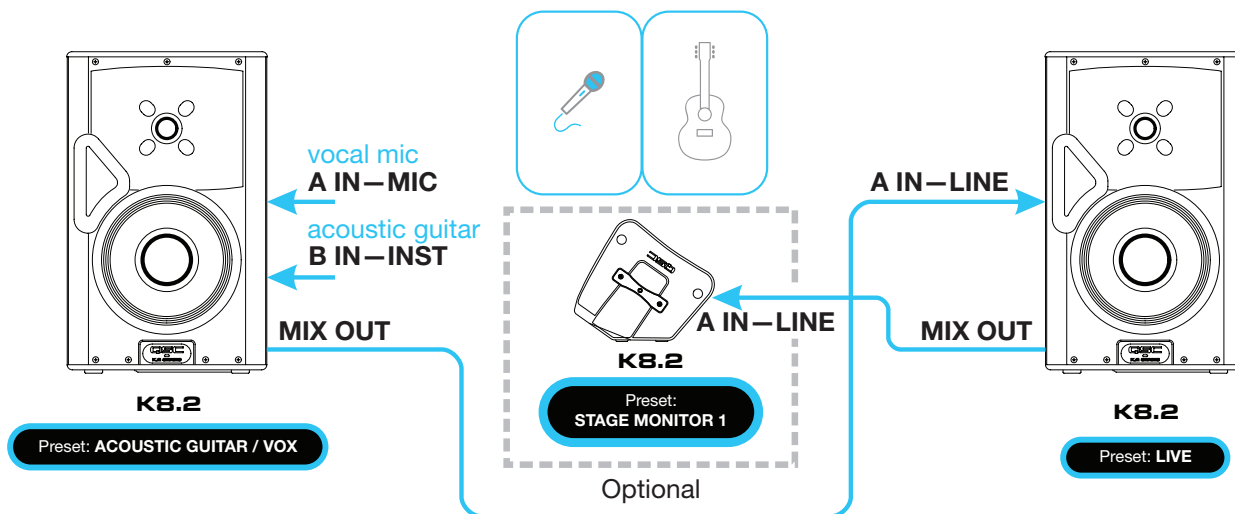One K8.2 loudspeaker [preset Acoustic Guitar / Vox; no sub]

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.

vocal mic
A IN—MIC

acoustic guitar
B IN—INST

MIX OUT

K8.2

Preset: **ACOUSTIC GUITAR / VOX**

K8.2

Preset:
STAGE MONITOR 1

A IN—LINE

Optional

A IN—LINE

MIX OUT

K8.2

Preset: **LIVE**

TECH REQUIREMENTS:
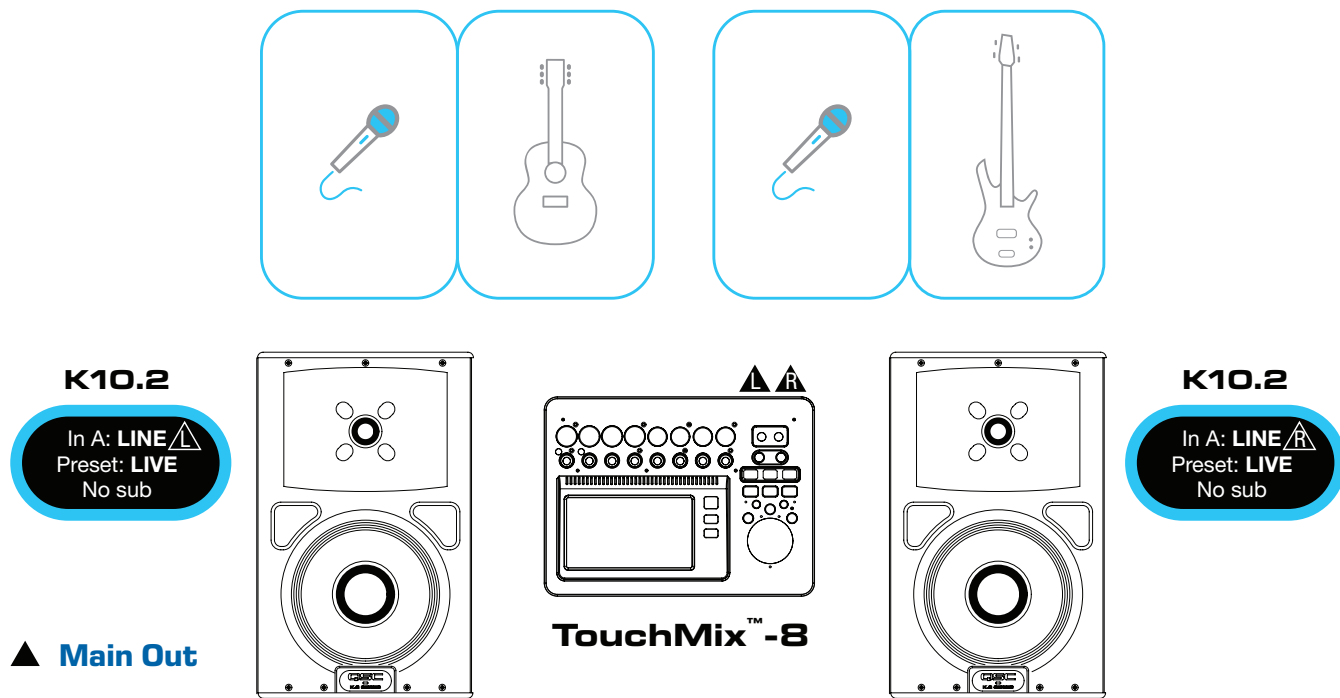
One vocal mic
One acoustic guitar (direct in)

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.

K10.2

In A: **LINE** ⚠️
Preset: **LIVE**
No sub

▲ **Main Out**

TouchMix™-8

K10.2

In A: **LINE** ⚠️R
Preset: **LIVE**
No sub

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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