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TUBE PREAMP REVIEWS

PS Audio BHK Signature preamplifier

Jim Austin | May 23, 2017



"Let be."

Those two words, from Shakespeare's *Hamlet*, express an entire philosophy of life in one of the shortest sentences possible. The quotation may not be familiar, but the concept certainly is—contemporary equivalents, each with its own inflections of meaning, include: *Shit happens. Let the game come to you. Keep calm and carry on.* (I hate that one.) Paul McCartney wrote something similar, and only slightly less concise, in a late Beatles song.

It's Hamlet himself who says, "Let be," near the end of the play (Act V, scene ii). Things are going poorly. His beloved Ophelia has just killed herself. He's being tormented by the Ghost of his dead father, who urges him to seek revenge against his uncle, who the Ghost claims is his murderer. "If thou hast nature in thee," the Ghost urges Hamlet, "bear it not."

For Hamlet, though, things are . . . complicated. In some respects, he is a thoroughly modern guy. He's not sure he believes in ghosts, or entirely trusts the evidence of his eyes and ears. Before going off to kill the current king, he wants more concrete proof. But deep down, he knows that his senses are all there is, and all he'll ever have.

Chaos ensues.

It's a lot like being an audio reviewer.

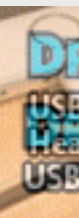
GUILDENSTERN: The very button

The BHK Signature preamplifier (\$5999 in black or silver) marks a surprising turn for PS Audio: It has tubes. That's surprising because CEO Paul McGowan has long been anti-tube. "It's not that I do not like the sound of tubes, I always have," he recently wrote on the company's website. "I just never felt their frailties were worth their sonic virtues, and I was convinced we could do as well without them."

He recently changed his mind, thanks to amplifier guru Bascom H. King—the BHK in the name of the company's BHK Signature line—who was recently lured from semi-retirement to create two new power amplifiers and this preamp.

Why the change of heart? The story, as told in videos on the PS Audio website, is that McGowan asked King to design a preamp, and King accepted, on one condition: tubes. There's just something magical about a tube, King says—something intangible. McGowan listened, agreed, signed off, and the BHK Signature preamp was born.

On the outside, the BHK Signature is sleek. Its rounded front panel features swaths of matte-finished metal, with a volume knob, a display (bright, but



dimmmable), a lit-up logo that serves as a standby switch (to keep the transistors powered up when the tubes are turned off), a ¼" headphone jack connected to an internal headphone amplifier, and a little black button that's used to select inputs via the BHK's front panel instead of its remote control (included). Subtle, intersecting grooves add visual interest.



On the rear panel are five sets of inputs, each with both single-ended (RCA) and balanced (XLR) connectors. Outputs, too, are XLR and RCA, and PSA says you can use both at once. There's a rocker switch for power, an IEC inlet, and two 12V triggers for automatically powering up a pair of BHK monoblocks when you turn on the preamp.

The top panel is in PSA's usual shiny black, with a metal grate that provides ventilation for and access to the tubes. PS Audio encourages tube rolling.

Inside are a big toroidal power supply with five MOSFET regulators, and through-hole (not surface-mount) components, all carefully selected. "Even the solder we use has been auditioned for best sound," says the website. Then there are those "wonderful tubes"—BHK's phrase: two 12AU7 dual-triodes, which provide voltage gain and are involved in the preamp's innovative two-stage volume control. The BHK Signature's fine increments of volume adjustment (0.5dB) are achieved by altering the tube-stage gain—and every 10–12dB a relay clicks in, activating a step in a discrete stepped attenuator.

The BHK preamp is fully balanced from input to output. Its output stage riffs on the traditional push-pull design, using all-N-channel power MOSFETs in place of the more common complementary arrangement

(footnote 1). The N-only topology is something King has been doing for a while in his amps and preamps. "The preamp's tube stage as well as its MOSFET N-channel output buffer are independent circuits and without global feedback," McGowan says. "They achieve their low distortion and characteristics through careful design and high voltages."

HAMLET: More matter, with less art

A premium component should offer the whole package: great sound, of course, but you've got to get the other basics right. In a preamp, the most basic basics are source selection and volume control.

Source Selection: With the BHK Signature, source selection is achieved via internal relays, which can be activated from the remote control or the front panel. Most people, probably, will use the remote, but those who prefer the front-panel controls will find themselves pushing that little black button to cycle through inputs. The button is perfectly functional, but having to repeatedly press a little nubbin of plastic is not the sort of luxurious experience you might expect from a \$5999 preamp.

Volume Control: The most important thing a volume control does, apart from preserving the sound, is to cover an adequately wide range of volume in sufficiently small steps in a reasonably linear way. The BHK easily met these standards, covering the range from "I can't hear it" to "I can't stand it" in steps of about 0.5dB.

The BHK Signature's volume control was not, however, completely silent. At two points on the volume scale—between "23" and "24" and between "52" and "53"—I heard a moderate *click* from inside the preamp, similar to the sound it makes when a new source is selected. Furthermore, each 0.5dB step was *sometimes* accompanied by a soft, short *chiff* from my speakers. This chiffing varied in volume throughout the listening period: it was noticeable at first, then faded to inaudibility, then returned, then faded again. As I write this, it's just barely audible at a few spots in the volume range with no music playing. I'm thinking this must be one of those tube frailties Paul McGowan objects to (footnote 2).

How important is this? I don't change the volume much while the music is playing. And if the music *is* playing, at a moderate or louder level, the music masks the sound. It could matter to you, though.

The volume knob features haptic feedback, familiar from iPhones: push on the phone's screen with a little force and feel a little bump, as if you were pushing a real physical button. On the BHK, the feedback causes the volume knob to resist when it's turned—intended, I think, to give the knob a more substantial feel, as if it were a mechanical knob with detents. For me, though, it didn't work, or at least not well. The knob's action just felt rough—nothing like the luxurious, ultrasmooth, mechanical knobs of yore. If you use the remote's Volume rockers, you won't notice.

Footnote 1: See [Michael Fremer's review](#) of the BHK Signature 300 monoblock in the February 2016 issue.

Footnote 2: Apparently this problem was [more severe in a prototype](#).

NEXT: [Page 2](#) »

COMPANY INFO

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ARTICLE CONTENTS

- [Page 1](#)
- [Page 2](#)
- [Specifications](#)
- [Associated Equipment](#)
- [Measurements](#)

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COMMENTS



Hmmm

Submitted by Joao1 on May 23, 2017 - 3:04pm

Quite an esoteric review.

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Great review

Submitted by volvic on May 24, 2017 - 8:45pm

Nice writing, read it three times. Well done Mr. Austin...keep em coming. BTW, did you ever get A/C for the apt?

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>>Nice writing, read it three

Submitted by JimAustin on May 25, 2017 - 9:23am

>>Nice writing, read it three times. Well done Mr. Austin...keep em coming.<<

Thanks!

>>BTW, did you ever get A/C for the apt?<<

No, but I'm seriously considering it. Main problem is, the only place to put one in the main living space is right behind the component rack. I'll probably need to chill the place and then turn it off for critical listening.

Cheers,
Jim

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Nice Review

Submitted by dmineard HT on May 24, 2017 - 2:06pm

Well done. Great style. Wish more writers hit the spots you did. Thanks.

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Thank you! Much appreciated!

Submitted by JimAustin on May 25, 2017 - 9:24am

Thank you! Much appreciated!

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Room Treatments
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Audio Streams
Gramophone Dreams
Music in the Round
The Entry Level
Fine Tunes

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Reference
Audiophile Essentials
Interviews
Think Pieces
Historical

Show Reports

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CES 2015
CES 2014
CES 2013
CES 2012

RMAF 2016
RMAF 2015
RMAF 2014
RMAF 2013
RMAF 2012
RMAF 2011

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AXPONA 2013
AXPONA 2012
AXPONA NY 2011
AXPONA 2011

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SSI 2015
SSI 2014
SSI 2013
SSI 2012

LAAS 2017
Montreal 2017
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