

# ProAudio Review

The Review Resource for Sound Professionals

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## Henry Engineering SixMix Broadcast Console/USB Interface

Henry steps out from behind the curtain in a big (yet diminutive) way with this feature-packed micro-broadcaster.

by **Steve Murphy**

at-a-glance functionality for self-broadcasters and remote broadcast engineers.

### FEATURES

The diminutive and highly portable SixMix broadcast console measures a mere 12 x 8 x 3 inches, weighs 5 pounds and most definitely bears a strong Henry-family "blue-box" resemblance despite the presence of its many large, multi-colored user controls. It has a built-in power supply/transformer fed by a standard

Since 1982, Henry Engineering's ubiquitous blue boxes—including the popular Matchbox series of pro/consumer level matching interfaces—have made their homes at the back of racks, under consoles, behind studio furniture, screwed to flight case covers and tucked away in myriad machine room recesses. Almost without exception, Henry's utilitarian products are designed to solve problems and add

### FAST FACTS

#### APPLICATIONS

Broadcast Audio

Features: 10-input mini broadcast mixer with 2 x mic inputs plus 4 x balanced +4dBu line and 4 x unbalanced -10dBv inputs; USB 1.1 bi-directional stereo computer interface; automatic monitor muting; tally light output; mix-minus support; cue/preview bus and auto-switching; built-in cue speaker and rear-panel cue out.

#### PRICE

\$1,195

#### CONTACT

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value to existing equipment in an unobtrusive and predominately unattended manner. Trim pots and DIP switches aside, most have no traditional controls or indicators and once set, require no regular user intervention.

With that in mind, the new Henry Engineering SixMix small-format broadcast console (\$1,195) marks a major new direction for the company. Sporting extra-large knobs, LED VU ladders and buttons and knob caps coded in bright primary colors, this endearing little guy provides a wealth of hands-on,

removable IEC power cable.

The console accommodates an impressive 10 mono/stereo input sources, with six input sources available to the mix bus at any one time. Channels 1 and 2 are configured for dedicated microphone use, with respective XLR inputs on the rear panel. Channel 1 is designated for the console-operator's use and channel 2 is for a guest/booth microphone. Both mic channels feature momentary cough/mute switches and program bus (PGM) assignment switches with

corresponding PGM/Cue-assign LED indicators. Channel 1 has a momentary talkback switch that works in conjunction with Henry Engineering's MultiPhones Guest Pod to provide a guest/booth announcer with a dedicated headphone audio feed that has Talkback (IFB) from the console operator.

Mix Channels 3 through 6 are for stereo (or mono if externally summed) line-level sources such as CD players, tape decks, carts, and other playback sources. Each of these channels offers an A and B input source selection (with respective green/yellow LED indication), bringing the non-mic source inputs to eight total. The "A source" inputs 3 through 5 support professional-level (+4 dBu) stereo input sources on balanced TRS 1/4-inch jack pairs, while the "B source" inputs 3 through 6 support consumer-level (-10dBv) stereo input sources on RCA jack pairs.

Input 6A is normalised to accept input audio from an attached computer via the SixMix' internal codec and external Type B female USB connector. The SixMix PGM bus feeds the A-to-D section of the USB codec for direct recording (and later editing if desired) of the program material.

## | IN USE

The thing that unquestionably sets Henry Engineering's SixMix apart from the popular micro-format mainstay mixers (e.g., sub-\$700 Mackie, Allen & Heath, Yamaha consoles) is that the SixMix is designed explicitly for broadcast use. For those who have toiled with bending those consoles backwards to make them work for live radio broadcast applications—myself included— will not find the near \$1,200 list price out of line. Aside from the fact that broadcast products in general command a higher price than their pro-audio counterparts, the large number of broadcast-ready features and the on-air error-free performance (and resulting peace of mind) they enable can easily justify the cost.

For this review, I put the SixMix to work for "live-to-tape" (well, computer) duty in my own production studio and for "live-to-air" duty at the National Press Club. In both applications, a Dell Duo-Core laptop running Sony Sound Forge 9 was used to record the program mix output via the console's

built-in USB interface. Because the SixMix codec uses the broadly supported USB 1.1 specification, the SixMix requires no special drivers (it instantly showed up as "USB Audio Codec" on my computer and used the "Windows Classic Wave Driver" in Sound Forge) and should be compatible with any USB-enabled computer.

Audio quality of both the analog mixer and AD/DA sections of the SixMix was very good and decidedly clean; though I didn't get to do any head-to-head comparisons with the console set mentioned above, I would suspect the SixMix boasts better noise performance since it lacks the non-fully bypassable EQs and aux/sub returns found on many of the aforementioned project-studio and live-oriented console ranges.

In fact, not only does the SixMix have no EQs, pan knobs, aux sends, aux returns or subgroups, it also has no master bus output control. For some, this may be taking the streamlined-operation and spartan-mix-path thing one step too far (myself included), but I recognize that for others, the less controls in the hands of the on-air broadcaster (and perhaps the more overall control ceded to the Technical Operations Center), the better. Note that the two mic inputs do have preamp gain trimmers, and TRS (send/return loop) insert points for processing with external EQ, compression, etc.

What the console does have are plenty of features that allowed me to be up and running with a full-featured on-air broadcast setup virtually anywhere in just a matter of minutes. In addition to the aforementioned talkback-interruptible phones bus, the SixMix provides the console operator with a full auto-switching cue monitoring system (with dual-color LED indicators for PGM bus and cue bus assign) plus auto-muting of the control room monitor outputs when a mic is open (user-programmable via internal switches) and built-in tally light ("On-Air") support for the more permanent installations.

Other features I found most welcome on the SixMix were: dedicated balanced "Air Monitor" confidence inputs that can be quickly auditioned in the CR monitors via the PGM/Air switch; a handy front-panel input (duplicate of rear-panel 5A RCA

inputs) on a stereo mini jack for iPods etc.; a S/PDIF digital out connection (computer L/R output signal), though oddly on a 1/8-inch jack; and an unbalanced parallel output of the main balanced outputs ("Rec Out") on mini.

Also of high value for many potential users is a dedicated mix-minus output for use with telephone hybrids. The "minus input" (from hybrid) can be internally set to use either channel 2 or 3. Note that a special wiring scheme is implemented whereby the mix-minus output signal appears on the tip of a TRS output jack; this is, of course, so Henry could cram even more functionality into the mixer, namely a dedicated mono output of the cuing bus on the ring of the connector. This is especially handy for feeding a dedicated cuing speaker when headphone previewing is not possible (like during hectic video satellite media tours when one's ears must be available to hear orders barked from many directions at all times).

Definitely on my wish list—should panel surface real estate somehow be freed up or expanded, that is—are built-in phantom powering and actual knobs instead of trim pots for setting mic preamp gain. Program bus inserts and some kind of output control would also be appreciated (though a trusty Aphex 312 Compellor—with its excellent metering and linked output control—solved both of these "wants" for me).

## | SUMMARY

The deceptively small SixMix console adeptly fills a large and long-standing void in the market: a reasonably priced, small-format mixer with much of the cuing, mix-minus, IFB and auto-switching/muting/tallying functionality required of larger on-air broadcast console counterparts. Add in its no-muss USB computer audio interface and at-a-glance color-coded controls and Henry Engineering has not simply filled a need, but also produced a winner with the SixMix.

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