



JamHub

Personal Monitor System

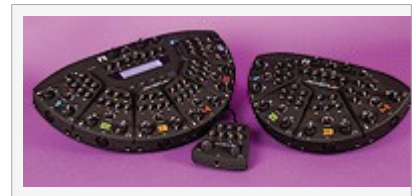
Published in SOS October 2010

For low-volume rehearsals and jam sessions, most options to date have been quite limited, particularly for creating separate monitor mixes. The JamHub range aims to make the whole process that little bit easier and more immediate.

Paul White

JamHub is the name of the company behind three different JamHub products, named BedRoom, GreenRoom and TourBus. The names give you an idea of their intended use — though you can, of course, use whichever system you want wherever you like (as long as you have mains power available).

Each product in the range is, at its most basic, an easy-to-operate headphone monitor-mix system that's primarily designed to allow musicians to jam together without upsetting the outside world. As such, it is most useful in conjunction with vocal mics, DI preamps, electronic drums, synths and so on, but it also includes instrument-level inputs, which means that you can monitor clean electric guitar or bass without a dedicated DI. That said, it could also be useful where the ensemble includes one or more miked acoustic instruments, too — as then only the acoustic instruments need to be played audibly, and you can do that at lower levels than is the norm. Promisingly, the top-of-the-line TourBus version also has the capability to make basic recordings... so let's see what these devices offer the rehearsing and recording musician.



Overview

All three systems are of a similar shape, are made from tough plastic with a soft, rubbery finish, and have PSUs that automatically adapt to worldwide AC power from 100V to 240V at 50-60Hz. Each musician has their own colour-coded mixing 'segment', which offers both mic and instrument inputs and a headphone output. Once plugged in, each player's sound source (their mix of instrument and mic input) becomes available to every other user plugged into the system. Separate level controls relating to each input channel are fitted to each segment, so everyone can set up their own individual headphone mixes. There's also a basic effects section that can be used to add reverb, delay or modulation effects to just the microphone mix. As I mentioned earlier, the TourBus model also includes the ability to make a stereo recording of the proceedings, either to its built-in card recorder or, via USB, to a computer — but all three models can, of course, be used to make stereo recordings of the performance if you have an external recording device. While the simplicity of the systems precludes multitrack recording, there's a lot to be said for having one set up in the studio 'green room', where musicians can work on their ideas and perhaps record scratch arrangements.

Before proceeding, it's important to mention that all the instrument jack inputs are wired for stereo, so that keyboard players can benefit from their own stereo sounds. One upshot of this is that guitar players will need to use the included mono-to-stereo jack leads, because their sound will otherwise be played on only one side of the mix. There's also no phantom power on the basic BedRoom model, which means that any connected mics must either be dynamic models, or battery powered.

All three of the JamHub units have one or more expander sockets via which you can connect the so-called SoleMix remote modules. These modules are optional for the BedRoom model but are included as standard with the two larger systems. They are provided largely for the benefit of drummers or keyboard players, who are often walled in behind their gear; it allows them to control their own segment, and to plug in their headphones, from anywhere in the room. Adding a SoleMix doesn't increase the number of inputs available, but it does allow an additional monitor mix to be set up based on the existing inputs. Because the SoleMix remote unit offers only outputs, it has no specific segment number. The layout of a SoleMix is the same as for the main unit's segments, except that there are no input trim controls.

BedRoom Buddy

JamHub's entry-level system is the JamHub BedRoom. It allows up to five musicians to participate, but there are only four numbered segments: the fifth segment is located at the top of the unit, and is set out slightly differently, with an 'R' (Recording) designation rather than a number. In most respects, this section is the same as the others, but it also contains the 16-position effects selection switch and the 1-R switch that flips between monitoring the 'R' section mix and



The rear panel of the highest spec JamHub, the TourBus.

the channel 1 mix. This allows the musician using channel 1 to set up a mix for recording, or to monitor their own channel, without having to unplug and replug their headphones.

The record section can be used as just another musician's channel, but where you have only four performers you might want to use it purely for recording. You can also plug any line-level sound source, such as an MP3 player, into its input, should you want to play along to a backing track. The 'R' section output will still drive headphones, but its output can also be used to provide a stereo feed to a recorder or powered speakers for monitoring.

Within each segment, you'll find a dual-concentric trim control for adjusting the mic and line input levels (both inputs may be used simultaneously, which is handy), with a second dual-concentric control to set the output (phones) volume and to adjust the level of effects in that channel's mix. On the outer edge of the case, there's an XLR mic input and a stereo instrument jack for each 'channel' in each segment, as well as a quarter-inch stereo headphone jack. Five colour-coded and numbered knobs let you balance the feeds from all five channels to set up your personal monitor mix, while the 'stage' knob lets you pan your own performance to an appropriate position in the overall stereo mix.

Going Green

The JamHub GreenRoom uses the same topography as BedRoom, but has seven segments rather than five, with three channels per segment, and one SoleMix remote control is included — although there are sockets on the main unit to accept up to four of these if needed. Each section has seven mix knobs for the various sources, as opposed to the five of the BedRoom version, and there's globally switchable phantom power on this model too — but in all other respects, it's just a larger version of the same thing.

The Grand Tour

The top-of-the-line TourBus model follows a very similar format to the GreenRoom, in that it has seven channels and four SoleMix ports, but this time two SoleMix remotes are included, and the rear section incorporates an SD RAM card recorder that can record a stereo mix in 16-bit, 44.1kHz WAV format (a 4GB card comes with the package). There's also a USB port, which allows the 'R' section mix to be streamed directly to a computer.

When plugged into a computer, the JamHub TourBus shows up as a generic USB audio device without the need to install driver software, and checking this with my Logic-based setup, it showed up in the list of available audio devices as soon as Logic was started up.

Unlike the other JamHubs, the TourBus 'R' section has a slim LCD, below which are four soft keys used to select the screen display options, with a further row of conventional transport buttons below. Hit a wind or rewind button once and the audio moves in the appropriate direction at five times actual speed; hit it twice and it hikes up to 10 times; and hit rewind three times in a row and you jump directly to the start of the song — unless you're within the first three seconds of playback, in which case it will take you to the start of the previous song.

Pressing Record puts the device into record standby mode, which is indicated by the blinking of the red record LED. Press it again and recording starts, with the record LED lighting solidly. When you press stop, you get the choice to keep or discard the recording. Alternatively, you can hit the soft key above the word New in the display to save the current recording and start a new one. It's also possible to place markers into a song, allowing you to locate specific points quickly, or to set the audio to loop between the two markers. Because the screen issues prompts, and labels the options for the soft keys, operation is very intuitive.

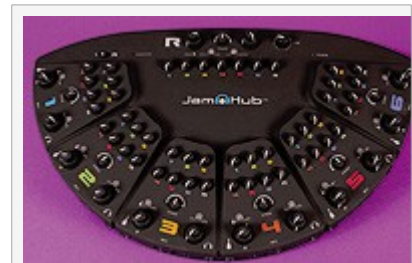
Built-in metronome facilities can be accessed via the display's default Home menu, and you can use the soft keys to set the tempo numerically, or simply by tapping in your own speed. There are also a few useful time signature options. The same Home menu also provides access to the directory of recorded songs and a utility menu, where you can format the memory card, check the free space and adjust the LCD contrast.

Tasting The Jam

The TourBus version being the most sophisticated model in the range, I conducted my tests mainly on that: the audio performance and operational paradigm of the smaller units is exactly the same, but without the in-built recording or metronome features. On powering up, the display asks you to insert the memory card, and after doing so you're presented with a menu that includes 'Utils'. Hitting that brings up more choices, one of which is to format the card. That takes just a few seconds, then you're ready to record.

As a straightforward monitor mixer, the JamHub worked fine, delivering decent audio performance and plenty of headphone level, though there was some audible background hiss that wouldn't be welcome if making a professional recording. I also noticed some low-level interference when performing some actions via the display section, and while these probably wouldn't matter much when jamming, they'd be annoying if you were making a recording. An LED next to the input changed from green to red when the gain was turned up too high, but there's no other metering.

I also checked out the effects, which include a handful of reverbs and delays that help give performances a bit more space, and while you probably wouldn't choose any of them for mixing, they do make headphone jamming sound more convincing. It's important to note, however, that you can't change the effect level added to individual mics. What each



The JamHub GreenRoom, whose spec is largely the same as that of the TourBus, but without the screen, USB connectivity or direct to SD-card recording.

channel's effect control does is adjust the overall effect level added to the mix of mics feeding that channel. The line inputs remain free of reverb, as most keyboards and guitar preamps have their own effects built in. Similarly, each user sets their own mic and instrument level, so this mix of the two sources is what is available to the other users via their own mix sections.

One minor concern is that as the JamHub is powered from an AC adaptor, it has no mains ground. This means that if you plug in your guitar modelling preamps, which also tend to run from AC adaptors with no ground, you could end up with more guitar hum and buzz than is necessary. A solution is to plug in at least one audio source that has a true ground connection.

The JamHub's simplicity is its strength, but this inevitably sets limits on some other potential uses. For example, fitting a direct line-level output to each section would have made it possible to feed a multitrack recorder while jamming, but as it stands, you can only hear the output as a stereo mix. Some may say it would also have been more useful if the TourBus version could record (or output via USB) separate tracks for each of the input sources, but the extra engineering and component cost would probably make this impractical.

The idea of having a JamHub set up in the studio green room, along with a couple of mics and modelling guitar boxes, so that musicians can check out their ideas quietly, is undeniably attractive. However, I can see no reason why a JamHub couldn't also be used in the studio as a personal monitor controller section fed from the control-room mix busses or direct outputs to allow the talent to adjust their own foldback mixes. Of course, additional SoleMix controllers would be useful here — because everyone would otherwise have to walk up to the JamHub to change their settings — so a GreenRoom or TourBus would be more useful than a BedRoom in this context. The on-board effects would also be handy in this application, allowing comfort reverb to be added to the vocalist's monitor mix.

Jam-azing?

Overall, all three of the JamHubs do exactly as the manufacturer claims, and while the signal-to-noise ratio isn't the greatest, it's fine for the intended purpose — and the recording capability of the TourBus version is adequate for capturing musical ideas as they occur.

Some people might take issue with the decision to use 16-bit (rather than 24-bit) recording resolution, but in reality it still has a wider dynamic range than the analogue circuitry preceding it — and, of course, 16-bit, 44.1kHz WAV files can be burned directly to an audio CD if required. While I can think of a few 'wouldn't it be nice if' issues, the JamHubs do what they do very well: they're genuinely useful tools for silent rehearsal, and have a potential secondary role as a personal monitor controller for studio use while recording. Indeed, they could well become the 'must-have' studio green room accessory — alongside the Nintendo Wii!

Alternatives

While there are personal monitor mixers designed for studio use, this is the first one I've seen specifically designed for rehearsal, though, as explained in this review, it also has some potential studio monitoring applications. One alternative way to do the job would be to use a mixing console with a monitor matrix section to set up individual headphone mixes, but for this task alone, the JamHub approach is rather more compact and cost-effective.