

MONITOR MATRICES GROUP TEST

Monitoring Controllers

Thinking of ditching your mixing desk in favour of a simple monitor matrix? **Jon Musgrave** puts four of the more popular models through their paces...

IF YOU'RE LIKE like me, you've spent the last couple of years making use of about 30% of your mixing desk's facilities: the monitor section, headphone set-up and a couple of faders – the bits of the desk that allow you to record one or two players, while giving them a separate headphone mix.

When it comes to mixing, I now use software, so we're down to two faders and monitor control for that part of the process. This has rendered 30 faders on my Mackie 8 Bus redundant. So I decided to downsize. Unfortunately, when you do this, everything gets reduced, including the monitor section and headphone facilities. So, with a number of monitor sections now on the market, there should be no problem in making up the difference, right?

In truth, it's early days for this sort of box. Sure, there have been a few high-end solutions, but these tend to cater to the surround-sound crew. If you're operating mostly in stereo, you won't want to pay for extra stuff you don't use. But what sort of features do you want? Well, the variation in approach taken with these four boxes shows it's not clear. Firstly, two of them are desktop and two rack mount. But other differences range from a mic input and low latency monitoring (MintPrint TRIO) to a rack mount design with wired remote (Central Station). Mackie have gone for the tactile approach with their Big Knob, and Samson's C-Control is surprisingly well equipped for the cheapest box on offer. Anyway, without further ado... ▶

The contenders...



MACKIE BIG KNOB

Price: £325

Web: www.mackie.com



MindPrint TRIO

Price: £329

Web: www.mindprint.com



P CENTRAL STATION

Price: £450 remote £150

Web: www.presonus.com



SAMSON C CONTROL

Price: £90

Web: www.samsontech.com





The Mackie is sturdy and easy to set up...

Mackie Big Knob

Mackie's monitor matrix is a departure from their usual fare...

DETAILS

MACKIE BIG KNOB

PRICE £325

TECH SPEC

Inputs: Two-track A, B, DAW, phones mix (all balanced/unbalanced jack), phono (unbalanced)
 Outputs: Speakers A, B, C, 2-track A, B, DAW, Phones Amp, Studio (all balanced/unbalanced jack), headphones x2
 Dimensions: 343 (W) x 150 (D) x 81 (H) mm
 Weight: 1.6kg

EVER SINCE THEIR 8 Bus analogue console became a success, Mackie have continued to develop more innovative products. Indeed, the FireWire option on their Onyx mixers already successfully addresses the desk-to-computer interface issue. So the solidly-built Big Knob represents a 'back to basics' unit for them.

A look round the back reveals plenty of connectivity. With most of the connections on balanced/unbalanced jacks with individual +4dB/-10dB switching, this unit should appeal to both professional and domestic users. One thing you won't find is any digital connectivity – it's a purely analogue unit.

The Big Knob enables you to connect up to four main sources (DAW mix, two-track A and B, and phono), and an additional headphone source. Each of these inputs is designed so that when you plug into the left only, it parallels to both left and right. Outputs, on the other hand, can be divided into two categories – monitors and through sources.

Catering for three pairs of main monitors, the Big Knob also has a Studio output, too, for live room foldback monitors, and carries the same signal as the headphone mix, including the control room talkback.

The through source outputs (two-track A and B, and DAW) carry

whatever input sources are selected on the front panel. The Phones Amp output carries the headphone mix signal, much like the Studio output. Incidentally, all the rear panel outputs are non-amplified. The only plug-and-listen connections are the two headphone sockets on the control surface.

The headphone set-up has two options. The headphones can get the same signal as your monitors, from whichever input sources you select. Alternatively, you can feed a separate signal to the 'headphone source' input, and switch that to your headphone mix. You can't do both at the same time, though.

In use

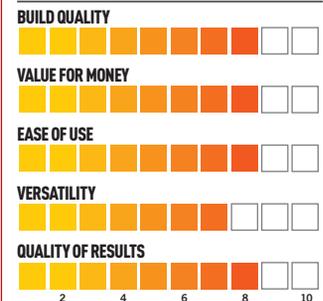
Setting up the Big Knob is a no-brainer, and with individual trim pots for each monitor output and all the sources, it's easy to get things levelled up. With mono, mute and dim options just below the knob, everything's very much to hand.

The talkback includes a level control, and can be activated using the front panel switches or any standard on/off footswitch connected to the back panel. Unlike most desks, however, pressing the talkback doesn't dim the monitor outputs, which is a surprise.

Of the four boxes on test here, the Mackie is the only one that plugs

straight into the mains, and the onboard transformer, no doubt, adds to its weight and the heat it produces. This is also by no means a small box, and once you've got a few cables plugged in to the back of the unit, it can make the desktop look a bit messy. Plus, anyone used to the two completely separate headphone mixes on the Mackie 8 Bus desks is going to feel a little short-changed by the headphone options on the Big Knob. But what it lacks on that front, it makes up for with the multiple monitor outputs and general tactile feel. So, overall, a very desirable unit, and with balanced and +4dB operation, it's one that should appeal to pro users.

VERDICT MACKIE



Sturdily built, tactile and easy to set up, but lacks digital connectivity and is bulky.



Great quality but costs a bit...

Presonus Central Station

The Central Station announces high quality all round...

DETAILS

PRESONUS CENTRAL STATION

PRICE £450

TECH SPEC

Inputs: TRS1, 2 (balanced jack), auxiliary (phono), digital S/PDIF phono and optical (44.1, 48, 88.2, 96, 176.4, 192kHz)
 Outputs: Speakers A, B, C, main, cue (balanced jack), headphones x2
 Dimensions: 483 (W) x 140 (D) x 44 (H) mm
 Weight: 2.3kg

I F YOU INCLUDE the remote control, the Central Station is by far the most expensive unit here, so you would expect it to have a quality angle as its selling point, and it has.

Based on a purely passive circuit for the main audio paths and a bunch of mechanical relays (34 in total), the Central Station has a feel not dissimilar to the higher-end Focusrite boxes. And the reassuring click you get when switching between inputs or speakers, combined with the notched knobs on all but the main monitor (we're not sure how that one escaped) lend the unit a luxurious feel not found in any of the other boxes here.

With two balanced inputs (on TRS jacks), phono input (auxiliary) for analogue connections, and both optical and coax S/PDIF, you can connect five sources in total (although you'll have to switch between the two digital ones). Outputs, however, are genuinely five – three to speakers (A, B and C) and two separate analogue pairs (main out and cue). There's no digital output, though, which is a shame.

What appears at the two outputs is decided on the front panel using the main and cue sections. The main difference between the two is that the cue output carries the talkback signal (and the main obviously doesn't). However, you'll also note that the cue section has an overall level control, whereas

the main section's knob controls the level of the auxiliary input.

One significant thing worth noting is that the cue and main sections can only select one source at any one time. So unlike the Big Knob, you can't combine sources. However, in mitigation this is why they've given you two discrete mixes, so your cue feed can be totally different to your main mix. Clearly, though, this assumes you've got the facility to blend that mix elsewhere – but more of that in a minute.

Unlike our first two boxes, the Central Station is a full-sized rack unit, meaning you'll either have to position it right in front of you or get the remote. And in combination with that remote, it becomes far less space hungry than our first two offerings (and keeps all the cabling out of the way) although, once again, the amplified headphone feeds are on the front panel!

In use

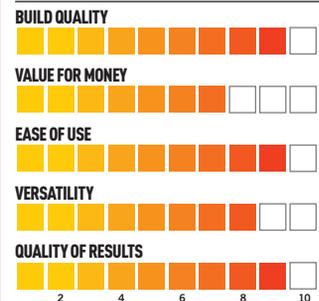
Given all the connections are round the back, it's nice to see the Central Station has its speaker trim pots on the front. This means you can sit in comfort right in front of your speakers, getting the levels right.

The Central Station was reviewed in *FM153*, and I agree with Tim Oliver's conclusion that it will help many studios remove or sideline their mixing desks. For me, though, I keep returning to the way Presonus have set up the cue option, thinking how it would work in an everyday situation.

The reality is that you'll need to pre-mix your cue feed somewhere prior to plugging it into the Central Station. Obviously, for those who have well specified hardware monitoring (say MOTU's CueMix or a Digi TDM rig) this is no problem. But there'll be plenty of other potential buyers who won't have this.

In fact, looking at the twin 'phones outputs on the front, I can't help thinking more could have been made of these. Each can be selected between the cue feed or the main output by pressing their level controls (nice touch), but it may have been more useful to include another cue input on the back, thus offering two cue feeds completely independent of the main monitors. Anyway, it's certainly more flexible than the Big Knob or TRIO, which offer only one cue mix at any one time.

VERDICT CENTRAL STATION



A fully specced, full-size box of tricks that can be remotely controlled – but costs a packet.



The Samson's a good budget option

Samson C-Control

For those on a budget, the mighty Samson has much to offer...

DETAILS

SAMSON C CONTROL

PRICE £90

TECH SPEC

Inputs: Mix, two-track A, B (balanced jacks), two-track C (phono)
 Outputs: Speaker A, two-track A, B (balanced jacks), Speaker B, C, two-track C (phono), headphones
 Dimensions: 219 (W) x 186 (D) x 42 (H) mm
 Weight: 1.1kg

CERTAINLY THE MOST compact, and by far the cheapest unit on offer in this round-up, Samson's C-Control fits into its half-rack 'C-class' range. Indeed, its rubber feet encourage you to stack it up with other C-class boxes (which include a tube preamp, headphone amp, optical compressor and stereo compressor limiter). Given its diminutive size, however, I suspect you'll be looking to slot it into a gap somewhere as close to hand as possible.

Offering a good feature set for the money, you get four inputs (DAW mix plus two-tracks A, B and C) and four outputs (Ext Cue plus two-tracks A, B and C). Aside from the two-track C connections (which are on phonos), all connections are on balanced jacks.

There are three speaker outputs (A, B and C), though C is really designed as a sub-feed, and is added to A and B. There are two interrelated monitor levels (the B knob is an offset level against the main knob). This is something we haven't seen on any of the other

boxes, and you'll also find mono, dim and mute buttons for the whole monitor matrix.

There's an onboard talkback with level and mic, which you can route to cues or two-track, and also a front panel headphone feed with volume. Finally, there's a footswitch socket on the back for controlling the talkback.

In use

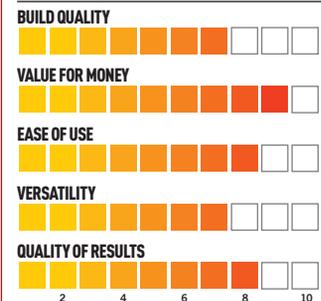
The C-Control probably takes the simplest approach of all the units here. The selected input sources are all summed to form the monitor signal, and this signal also appears at the two-track outputs (A, B and C). You only have control over its level to the speakers (not to the two-track outputs) and, as mentioned above, the two level controls work together for speaker feed B.

The external cue mix also carries this signal, along with the talkback-to-cue signal. Rather surprisingly, the front panel headphone feed is actually a split of the monitor signal, not the cues, so it doesn't carry the talkback at all. If you're planning on communicating with

the performer using the C-Control's onboard talkback, I'm afraid you'll have to get yourself a separate headphone amp (the Samson C Q8, for example), which is a bit of a drag, and certainly detracts from the value of the unit.

Obviously, there's plenty competing for space on the C-Control's front panel, and when you compare it to the tactile nature of the Big Knob, it seems very fiddly. Having said that, at least all the cables are tucked away behind it.

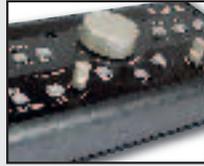
VERDICT C-CONTROL



A simple controller for those on a budget. Lacks digital or a headphone amp, and is fiddly.

At a glance...

VERDICT



MACKIE BIG KNOB



MINDPRINT TRIO



PRESONUS CENTRAL STATION



SAMSON C-CONTROL

Inputs/Outputs	5/4	5/3	4/2	4/3
Form factor	Desktop	Desktop	1U rackmount	Half-size rackmount
Balanced / Unbalanced	Both	Unbalanced	Both	Both
Headphone outs	2	2	2	1 (but not cuemix)
Turntable Input	Yes	No	No	No
Digital	None	Optical input and output	Optical and phono input	None
Cuemix output	Yes	No	Yes	Yes
Separate Studio Monitor	Yes with dedicated volume	No	No	No
Main speaker outputs	3	3	3	3

ALTERNATIVES

SPL MODEL 2381 £499

Just about to hit the stores, SPL's stereo monitor matrix takes the audiophile approach, though its retro looks may not appeal to all.

www.sonic-distribution.com

CRANESONG AVOCET £1,800

Why not splash out? This one has three digital and three analogue inputs (and, of course, three speaker outputs).

www.cranesong.com

THERE'S A BIG difference in price between the cheapest and most expensive units here, but they all have their strengths and weaknesses, irrespective of cost.

Even so, in terms of overall flexibility and innovation, the TRIO looks like a bit of a bargain – if its control surface was sturdier and it was a bit more audiophile in its approach (balanced connections at least), it would be an outright winner.

When it comes to build quality, the Big Knob is sturdily constructed, while the Central Station is more sleek and refined. Both feel made for professional use, and this feeling extends to their clear layout. The Central Station probably wins on the audiophile front, and its 24-bit/192kHz capable digital input will certainly interest high-end users.

If price is an issue, the C-Control does a perfectly good job, but you'll need to factor in a headphone amp if you want to talk to your performers.

Conclusion

Mixing desks have always been a compromise between quality and convenience. The advent of

DAW-based mixing has, no doubt, solved a lot of problems. However, it's created its own, and one of these is how best to address monitoring, including headphone mixes.

If you're recording a multimiked band, who need different headphone mixes and levels, a large format desk is the way to go. But if your recording needs are simpler, and most of the emphasis is on monitoring a stereo output, a modified desk centre section should do the trick.

So why does it feel as if the four boxes we've tested all miss the mark? Firstly, all of them seem to think you'll have three pairs of monitors. I suspect that for most people this is unlikely – and, anyway, £30 can buy you a perfectly functional three-way speaker switching box. Secondly, for units designed to help you harmonise your hardware world with your software one, having only three or four inputs (one of which will get used by your DAW) seems crazy.

Next, given that pretty much every audio interface on planet Earth has at least one digital connection, why do only two of these units have digital inputs? And finally, none of these boxes really hit the mark with

their headphone set-ups. Although three out of four have two headphone outputs, only one (the Central Station) is able to offer a different mix to each (and for some reason, all but the TRIO want to put both their headphone outputs on the front panel).

Only one unit (the TRIO) addresses the zero latency monitoring issue (although the 'phones mix input' on the Big Knob goes some of the way). Obviously, this is less of a problem if you're using a zero latency monitoring system like ProTools or CueMix.

Each of these boxes clearly has its strengths but, given the variation, you could end up feeling there's no consensus on what people want from a monitor section. But with a few decades of desk design to look back on, is this really the case? These units need to be more than glorified speaker switching boxes. If you own a decent computer-based system, it should now be possible to ditch your mixing desk in favour of a suitably equipped monitor interface. I suspect the door is still open for another manufacturer to come along and deliver the goods. **FM**