DRAWMER 4X4 KICKBOX

Audio Splitter

To be any good at kickboxing you have to be able to do the splits. MARK WOODS shows *Audio Media* how it's done.

In the early '80s, Ivor Drawmer was a struggling keyboard player in Yorkshire, England. He also designed audio circuits at the time, and encouraged by friends to develop them further, Ivor went on to build audio devices (whether Ivor's keyboard playing had anything to with this is not recorded). In 1982 he introduced the first of these, the DS201 Dual Noise Gate – still a top seller today, and still standard issue in PA effects racks around the world. Over the years Drawmer has released a range of more than 30 products all renowned for their clever design, ease of use and audio ability.

The newly released Drawmer 4x4 KickBox is an active audio splitter designed for outside broadcasts, live recording, press conferences, and other such events. Its main features are the take-anywhere case, excellent preamps, and the ability to split up to four input signals into a maximum of 16 outputs at the highest possible audio quality.

Can You Kick It?

The case is instantly appealing. Like a toolbox or lunchbox, it makes you want to look inside. Designed to protect the contents from water, dust, and corrosion, the hard exterior also allows the KickBox to be stored in a van or cupboard without needing another case. Beneath its strong carry handle is an air valve that rotates inwards to 'seal', or outwards to 'purge' – which has been included to equalise the unit during flight. Of course, with audio people being what they are, this would be easy to forget… recent images of the plane with a hole in the side spring to mind, but it's probably not that serious.

Opening the lid of the KickBox reveals an operating surface dominated by 20 input/output sockets, five control knobs, and a dozen switches. It's not cluttered; everything looks purposeful and rugged. Indeed, if I was making a James Bond movie and an audio splitter was required in a scene, I'd use this one without considering others. The controls all feel great and have clear markings. The square buttons are firm to the touch with a positive latching feel and, even without the LED indicator lights, it's easy to tell if they're engaged. The lid can be easily removed, and if the cabling is routed over the top of the box, clear access to the controls is maintained, even if all 20 sockets are in use.

The unit has four balanced input channels, each with XLR socket and eight-segment LED level meter, ranging from –24dB to +18dB. The gain knob has 12 settings in pleasingly chunky 6dB steps, from 0dB-66dB of gain. Having stepped gain controls on mixers with faders makes it hard to set all your faders at the same level, but since the KickBox has no faders, being able to reset the exact same gain settings time after time is the better option. Each channel has 48V phantom power, mic/line, and 'Listen' buttons, all of which have LEDs. When pressed into the line position, phantom power is automatically removed from that channel, a 20dB pad inserted, and the input impedance raised to over 10kΩ.

The KickBox's aforementioned 'Listen' button sends signal from the channel to the headphones for monitoring. The headphones have a continuously variable volume knob that's smooth to the touch, yet firm enough to resist accidental knocking. The headphone amp itself is a beauty; the phones will be jumping up and down on your head before they distort.

The Splits

Each of the four input channels is actively split into four XLR output sockets. Why active splits? Direct splitters have inherent problems: they lower the overall input impedance, which can degrade frequency response in long cable runs, and also add interference. The outputs are 'electronically isolated' (or you can specify the optional factory-fitted transformer isolation), which eliminates ground loops and RF interference, as well as preventing different loads affecting the signal level. This ensures signal integrity over long cable runs. Used in press conference situations, it also means multiple devices can be connected to the KickBox without interfering with each other.

As well as each channel being split into four balanced outputs, Channels 2, 3, and 4 have a 'Link' button, with LED indication, that (not surprisingly) links their outputs to the previous channel's input. This means that the KickBox can operate in various configurations: from four groups of one-input/four-output, right up to a single input feeding 16 outputs. The switching combinations are intuitive and nowhere near as confusing to use as they are to describe!

The result is a flexible splitting system configurable to a variety of applications. The KickBox can be used for the outside broadcast of a live show, operating as a four-channel mixer with, for example, separate splits from each channel for front-of-house, monitors, recorder, and outside broadcast facility. Or it could be configured so that one input gets split to all 16 outputs, making it ideal for conferences. It could even be fed from the front-of-house mixer for use by annoying camera operators who arrive just before the band starts and ask for a feed so they can record the sound. Better still, TV reporters who arrive halfway through the band's set can grab a couple of songs for the nightly news without affecting anyone else's feed.

I was particularly impressed with the sound of the KickBox. It has outstanding specs, it's quiet, and there's plenty of headroom. The preamps are studio quality with a warm and clear sound. At £680 it's not cheap, but as a comprehensive four-channel, go-anywhere tool, it's great value for money.

INFORMATION

£ **GB£680.00 (exc.VAT)**

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THE REVIEWER

MARK WOODS has over 30 years experience as a Live Sound Mixer and Recording Engineer. Live credits include front-of-house for Men At Work, Tina Turner, Midnight Oil, Crowded House, and Concrete Blonde. Currently living in Central Victoria he owns Bald Hill Music Studio, has a live PA, and is the House Sound Mixer at the Castlemaine Theatre Royal.