



Drawmer HQ

Christmas is fast approaching, and Drawmer could well be singing *Do You Hear What I Hear?* louder and clearer than most with its all-new, precision, high-quality monitor preamp/volume controller and D-AC aimed at high-fidelity devotees everywhere. **ROB JAMES** decides he'd better be nice because HQ's coming to town.

It is fair to say that we all pay a great deal of attention to the front end — and for very good reason; to borrow a data processing phrase: 'Garbage in, garbage out.' So, we spend a lot of time and money ensuring that the acquisition device, preamplifier, and A-D convertor are of the highest possible quality for the price we can afford. But what about the reproduction end of things? We pay similar attention to the selection of loudspeakers and power amplifiers, but often neglect the all important bridge between sources and power amplifiers. There are now a wide variety of monitor controllers and D-A convertors available, but outside the hi-fi market I cannot think of a machine that combines the ability to handle a wide variety of analogue and digital sources, control volume, and preamplify. Though high-quality preamps are available on the hi-fi market, they don't combine domestic inputs with the professional formats we require. Apart from which, there is always a faint whiff of brimstone and overtones of witchcraft where hi-fi kit is concerned.

Into this void, enter stage left the (UK£2250 + VAT) HQ from Yorkshire-based Drawmer, a company with a great track record in designing and manufacturing professional analogue and digital audio processors.

The HQ design goals sound deceptively simple: a precision interface between analogue and digital sources and power amplifiers or powered speakers with precision volume control, audiophile performance, and outstanding convenience and ergonomics. Achieving these goals requires state-of-the-art design and engineering and meticulous attention to detail. Upon unpacking, first impressions are promising.

The 2U feels substantial and weighs a not inconsiderable 6.6kg. Large feet and rack-ears are supplied — just remove whichever you don't need. HQ is very handsome with a piano-black, mirror-finish alloy front panel and black alloy control knobs illuminated around their circumference by LEDs. The source selector and Volume/Balance knobs are simply massive and give the HQ a strangely retro air when it is switched off, an impression dispelled immediately it is turned on by the bright, blue-white backlighting with

red sections to indicate position. The small knob on the right is a rotary power on/off switch and the one on the left is the speaker selector: Off, A, B, or A+B. Below this are two headphone sockets. In default condition inserting a jack into the left-hand socket leaves the speaker outputs as selected; a jack in the right-hand socket mutes the other outputs. This behaviour can be modified using internal jumpers. Further jumpers vary the output level attenuation of each output channel from +21dBu maximum down to +15dBu in 2dB steps and set the unit mode between fixed and variable level. Default output level is +17dB maximum; when the input trim is at +10dBu this rises to +27dBu.

A quick look under the hood reveals a linear power supply with a toroidal transformer and 13 regulation stages. There is a lot in the box, but everything is sensibly laid out and well constructed.

The rear panel is quite busy as well. After the usual IEC mains socket, two RJ45 sockets — Remote In and Thru — allow for linking multiple units for surround and for future developments. There are a total of nine inputs on the selector, corresponding to analogue balanced (XLR), Phono (RIAA curve, Moving Magnet impedance, with a switch to enable use as an extra line level input) and two auxes (phonos), digital USB (B-type audio interface only), Toslink (SPDIF), AES31 (XLR), SDIF (coaxial phono), and AES3id (BNC unbalanced). The digital inputs operate at up to 192kHz — apart from the USB which is limited to 48kHz.

On the output side the A speaker outs are balanced on XLRs and the B outs are unbalanced on phonos. There is also a pass-through SPDIF output that outputs the selected digital input. This will be particularly useful where the USB input is being used as a source from a computer and there is a requirement to record the output.

On the far right of the rear panel the Input Level Trim section allows for each input to be adjusted to suit variations in source output level using three push switches for 0dB, +10dB, and -10dB. Nine LEDs show which input is currently selected. Inputs are adjusted by selecting them on the front panel and

pressing and holding the desired level button until the associated LED lights. These settings are, of course, remembered when the unit is switched off.

High-quality precision volume control is very difficult to achieve. Even expensive potentiometers do not track any closer than a dB or so, and there are crosstalk issues as well. The Rolls-Royce solution has always been to use switched high-tolerance resistors, either switched directly or, preferably, via relays, since this allows a pot to be used for smooth control. However, the problem with this approach is the machine-gun rattle of the relays as the knob is turned (*It's the sound of money. Ed*).

Drawmer has invented a very ingenious solution it has called SRVC (Seamless Relay Volume Control). As soon as the knob is moved, the audio path is switched to a VCA, which is calibrated to match the resistor network precisely. When the knob is released, the appropriate relays corresponding to the current attenuation value are set, and the signal path is returned to the resistor network with no audible artefacts. The result is the cleanest path possible under listening conditions, with completely smooth control of volume. Steps are 0.5dB and tracking between channels is consistent to 0.1dB.

This hybrid VCA/resistor design has also enabled Drawmer to include some clever safety and convenience features, such as Soft Start at switch on, and muting when changing the input selection, selecting a speaker set from mute, or when unplugging the right headphones. An indicator shows when muting is taking place and the volume is ramped up automatically to the previous value — unless it was set above the 12 o'clock position, in which case the mute must be disengaged manually by turning the level knob counter-clockwise to zero then fading back up.

On paper the HQ's audio performance is stellar with sub -100dB crosstalk, -100dB THD and noise, and -114dB DnR. But, as we all know, the numbers never tell the whole story. Fortunately, the subjective performance is equally impressive. As far as I can hear, the unit is completely transparent. It is extremely convenient in use and has that all-important 'feel-good factor' when operating the controls. HQ is pretty much unique in the professional market and, with the forthcoming remote control, has the potential to become a full-blown monitor controller as well. I suspect there is a good chance some of these will also find their way into upmarket hi-fi systems. ■



PROS

Beautiful to listen to and look at; a new concept; very well made.

CONS

No moving coil cartridge option; would be expensive for a surround system (three or four units).

Contact

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