EQUIPMENT TEST

Yamaha 01V digital mixing console

The 01V is Yamaha's youngest progeny to emerge from their digital mixing nursery. Michael Gissing considers adoption.

The latest addition to the Yamaha digital mixer range is the O1V. Like all of their recent mixers, from the O2R downwards, much is familiar about the style, layout and operational concept. In fact Yamaha have so much confidence in my ability to operate this digital mixer that they didn't include the manual with the review unit – and to tell the truth I didn't need it. Anyone who has operated an O2R or O3D can use this desk straight away.

The O1V is priced and featured to be positioned below the O3D in the Yamaha hierarchy. It can also be seen as a replacement for the ProMix01 – essentially a souped-up version borrowing from the later digital mixers. With a price tag of $3995, Yamaha have again challenged our belief that cheap is nasty.

Operation and layout

The O1V is a familiar wedge shape, and conforms to a standard rack-mount width (460 mm). It is slightly deeper than the O3D (520mm) and combined with a reduction in the size of the LC display, space has been made for the input connectors on the top rear of the mixer, rather than the more typical back panel configuration. In a studio with a patch bay this layout would not be as neat, but in a simple home studio environment the positioning may allow the operator to quickly plug in a variety of devices without the need for a patch bay. The first 12 channels have a choice of balanced XLR or 6.5mm jack inputs. Inputs 13/14 and 15/16 are 6.5mm jacks and obviously designed for effects returns, as they have stereo faders for control. Gain/attenuation pots are on all 16 inputs, as well as a 26dB gain switch. Input levels from mic through to line are catered for. Yamaha have used the same 20-bit A/D convertors as the O2R and they sound very good. The desk provides 48V phantom powering, but the catch is that you have to switch it on for inputs one to six and/or seven to 12. If you are using different types of microphones or a mixture of mic and line inputs, this limitation will be frustrating.

Digital expansion

Unlike the ProMix01, the O1V has a slot for a single digital I/O card. All the major formats are supported, with AES/EBU, T-DIF and ADAT cards readily available, as are three different analogue I/O expander options. While the slot and cards are different to the O2R/O3D cards, they at least have the same connectors and wiring configuration. We had no trouble patching in our existing cables for the O2R into the AES/EBU card supplied. Via the card, eight inputs and outputs are possible. The menu allows the operator to select from bus outs, direct outs, aux sends or stereo out, for routing to the card outputs. With the AES/EBU card, this solves a minor problem, as the O1V doesn't have a dedicated AES/EBU output. The S/PDIF input and output are the only other digital connectors on the desk. Also absent is a word clock BNC, although the desk will clock to an external digital source. (Surprisingly, the internal clock for the desk only gives the option of locking at 44.1k.)

The O1V uses Yamaha's familiar menu system with the repeated pressing of a menu button toggling the sub menus. The usual displays and adjustments are available: channel delay, digital attenuation, phase, panning, routing, equalising, dynamics, setup and utilities menus are all present. The familiar data wheel with attendant yes (+) and no (-) buttons helps to drive the menu selections. Again this is much the same as the O3D, although there were no dynamics available for the digital inputs.

The most notable absence, however, is the lack of full on-board automation. This is comparable to the ProMix01 limitations, and external Midi control is the way to overcome this. There is also the Yamaha 'To Host' port which can be used to drive the desk. Systems like the dSP hard disk editor automate the O2R and O3D through this port, but they have not been

asked to drive the O1V yet.

There are 15 short throw (60mm) motorised faders, the same type that are used on the O3D. A curious change is the lack of the familiar 'Flip' button to change fader status from inputs one to 16 to the digital inputs 17 to 24. Instead you have to select the Digital I/O button to change the fader status, then a different button labelled 'Home' to flip the desk back. This method does not save on buttons and is a confusing change for no apparent ergonomic gain. Selecting the auxiliary buttons automatically flips the faders for send levels, and the stereo fader doubles as the master send for each auxiliary.

Pots

Operators will be happy to note that unlike the O3D there are pots for pan and EQ control. Like the O2R, each selected channel can be panned from one single continuous rotary pot. Below the pan pot are two other colour-coded pots for EQ. Buttons next to the pots select the EQ band to be adjusted. Like the O2R and O3D there are four bands of parametric EQ and the adjustments for frequency, gain and Q are the same. However, anyone familiar with using the O2R equaliser will probably make the same mistake as every operator here at Digital City Studios did. As each of us had a quick play to check out the desk, we repeatedly grabbed the pan pot to adjust the Q, because it is in the same position as the O2R's Q pot. The O1V does not have a pot for the Q adjustment and the data wheel must be used to set the Q value. From an operator's point of view, it would have been far better to provide three pots for the EQ and leave the panning to the data wheel. Certainly having any pots for the EQ adjustment is an improvement over the O3D's total reliance on the data wheel.

Automation & effects

There are 100 snapshot memories on board, accessed by the memory button. There are 80 memories for the EQ library settings, 40 are preset and 40 are user memories. These are total desk snapshots, although you can manually disable the memory recall from affecting non-fader parameters and certain fader/auxiliary parameters. This is the same memory system found on the, now venerable, DMC1000. It would be fair to say that the O1V exhibits some of the features of Yamaha's new generation of digital mixers, although some of the methodology is still a carry over from the ProMix days.

Two on-board effects units and four external auxiliary sends are provided. The on-board effects are almost the same package as the O3D. There is one difference that is stunning in its simplicity and will have the musicians of the world jumping for joy: effects that calculate delay taps or frequency rates can be auto adjusted by dialling up the song tempo (or, if you like, capturing the tempo from the Midi port). As usual Yamaha seem to pop some of their most impressive operational features into the cheapest product in the range.

Back panel

On the back panel we find two balanced +4dB analogue stereo outputs. One is designated Monitor Out (6.5mm jack) and the other Stereo Out (XLR connector). Four other 6.5mm jacks, dubbed Omni Outs, provide the auxiliary analogue sends, or can be configured as bus outputs and direct outputs. There are also phono I/Os on the top of the desk to connect an unbalanced -10dB two track in/out. A headphone jack is provided, while level control of this and the monitor output completes a simple but functional layout. Mention should also be made of the extra trouble that Yamaha have gone to with the colour scheme. I think the dark blue shading and a silver/grey finish give the desk a smarter appearance than the battleship grey of the O3D.

Comparisons

When reviewing the O3D [AudioTechnology, Issue 1, p76], I found fault in the lack of control knobs and the reliance on the data wheel. The O1V is slightly better in this respect, although the data wheel is still required far more than on the O2R. The O1V also doesn't have the mouse port that in some ways helps to drive the O3D. The lack of dynamic on-board automation in the O1V may dismay many users.

My continuous comparison between the O1V and the O3D is based on the fact that these desks really are in competition for the home studio digital desk market. The fact that they share most features and are almost identical in channel configuration has led me to conclude that for most people the real question is, "how do they differ?", and, "do I need the bits that have been left out?".

Going Live

Although unable to employ the 01V in a live environment for the purposes of this review, its applications in this area are obvious. With 12 balanced XLR mic inputs, versatile routing supplied by the Omni outs, full dynamic control on every channel, the snap shot automation and EQ/effects libraries, you're looking at a cost effective and supremely portable alternative for many front of house and monitor applications. Theatres will particularly appreciate the 01V's automation facilities. With the complexity of spot effects growing, a desk like the 01V will match that sophistication, being able to call up radically different effects instantly, and route the results not only in the stereo field but through any of the four Omni outputs. Meanwhile a delay facility shared between the Omni and main stereo outputs will ensure time alignment between a multi-speaker set-up in such an installation.

If you're wondering how the 01V will stand up to the rigours of touring, then the fact that Jands Production Services (Australia's largest touring company) are buying 01Vs by the crate load should be endorsement enough! Many operators may initially baulk at employing the 01V's assignable control surface in the context of a live performance, but the space saved through the redundancy of racks of outboard effects and processors, (not to mention the cost saving), will, I'm sure, bring just as many

The O1V is around half the price of the O3D, but it is not half the desk in features. As a colleague pointed out to me, the O1V is cheaper than most eight-channel D/A convertors, so if you wanted to plug a Soundscape with a T-DIF interface into an analogue desk simply for monitoring purposes, you may as well throw the analogue desk away and just buy an O1V!

Level metering on both desks is quite limited, although the bigger LCD on the O3D gives it the edge for all aspects of menu control and metering. The O3D has extended panning options for surround mixing and additional digital outputs. Again, these will not be such an issue in a simple home studio. Both desks can be setup to remotely drive other devices via Midi. The O3D however has included remote drivers for devices like ProTools, and while the O1V can be manually set up to drive a ProTools system, it is an extra operator function. [The 01V happily controls MMC machines' transport functions, while a user memory set-up may be employed to set up fader control on products like ProTools - ed] To further cloud the waters we must remember that Yamaha has also released the DS 2416, a 24-channel PCI slot version of the O3D. It seems to me that Yamaha are determined to provide every possible solution for the home studio market. These desks are also suited to extra monitoring and routing applications in any studio.

Verdict

The O1V delivers far more than its price might suggest. You don't get 'something for nothing', but you do get heaps for very little. My feeling is that the O1V will be employed in a variety of studio applications, but principally as an extension of a main mixer, a monitor mixer or a complete mix package in a home Midi-based studio. Equally the 01V's feature set makes it just as at home in a live environment [see 'Going Live']. Tour operators and installers have gradually been coming around to the 02R's suitability in this area and I can only see the 01V's price and features advancing this digital trend even further. Finally, if the limitations of the desk compared to the O3D or the O2R are not critical for your purposes, then thank Yamaha for continuing to deliver amazing value to the small-scale digital mixer market.

Distributed by

- *Yamaha Music Australia*

phone: 1800 805413 or +61 (0)3 9693 5111
fax: +61 (0)3 9699 2332
Yamaha on WWW: 'www.yamaha.co.uk' or 'www.yamaha.co.jp/product/proaudio/homeenglish/index.html'

Prices

- *RRP: $3,995*
- *RRP: $445 (MY8AT ADAT card)*
- *RRP: $445 (MY8TD TASCAM card)*
- *RRP: $595 (MY8AE AES/EBU card)*
- *RRP: $TBA (MY4DA Analogue XLR output card)*
- *RRP: $TBA (MY4AD Analogue XLR input card)*
- *RRP: $TBA (MY8AD Analogue TRS Jack input card)*