

# CAD VX2

The 'mother' of the CAD microphone range arrives at Audio Media. MIKE SKEET puts it through its paces.



This physically large two-valve microphone from Conneaut Audio Devices of Ohio, USA comes with two different variable polar pattern capacitor capsules: the VX2PS power supply, a special ten-metre coupling lead, with seven-pin XLRs, to join the two together, and a substantial suspension mount, all in a foam, compartmentalised, large carrying case.

The microphone needs to be 'permanently' fixed in the shock mount as there is no other conventional way of attaching it to a mic stand. Three spring-loaded knurled screws associate the two together. Cleverly, the carrying case cares for them in this joined-up state. The mic is intended to be used in the attention-grabbing 'upside down' position, as the on-body switch labelling can then be read. These are in a recessed bezel up near the XLR exit end. One is for polar-pattern selection - omni, cardioid, figure of eight. Another gives an LF cut, and the third produces pre-attenuation of output levels of -8dB or -16dB for high SPL situations.

I would describe the VX2 as being 'boldly' built, or should this be expressed as built 'boldly'? The blue body has ventilation slots for controlling the valve-produced heat. Certainly the body has a comforting warm feel to it in

use, there being two 'dual circuit' valves. Looking inside the body I found this review unit had a Sovtek 7025 (12AX7 equivalent) taking the capsule outputs, with an American 5814A (12AU7 equivalent) feeding the output transformers. There is no 'chippery' in the circuitry!

The interesting thing emerging from this arrangement is that the polar pattern and LF cut switching is done in the electronics and not at the front end directly involving the capsules. One plus point is that the polar-pattern switching is pretty silent and does not produce the splat, bang, and wallop, mic amp/monitor stressing consequences, as is often the case!

The power supply has a toroidal transformer in the neat metal box with blue end faces, matching the blue mic body. There is no ground lift switch, as on some such units, but there was no evidence

of any ground loop problems in any of the different configurations I used it in. The rear panel has the IEC mains input socket and the mains voltage switch. The front panel has a seven-pin XLR (F) socket for the incoming mic feed and a three-pin XLR (M) output for the ongoing feed to the desk mic amp.

Intriguingly the front panel also has a detachable cover over two thirds of its width for a 'Digital Output Module'. There's a future development coming here, and I do hope that it has the sensible facility of having an on-board mic amp and the ability to adjust in many steps the analogue level into the A/D, as there is a need to 'drive' any initial A/D to sensible levels and not just rely on excessive 'bit shifting' later.

The microphone is not particularly sensitive to handling noise, and less so in the omni mode, as would be expected. The suspension mount very effectively aids this immunity. The supplied Gotham cable does not easily convey picked-up mechanical interference, although it is best to loop it at the mic end and tape it to the stand to damp down any such transmission.

### **The Capsules**

Two capsules are supplied with the kit. The 'standard' OS-125 with a one-and-a-quarter-inch diameter capsule, and the smaller sized, as judged by looking through the mesh grill, OS-110. Isn't it interesting how we need to relate microphone diaphragm diameters, the way we know it in the UK, by Imperial measure! They are not all that quickly interchangeable as three screws are involved in the process. Spring-loaded, gold-plated, three-pin connectors couple the dual diaphragms to the input stage valve.

It seems that the provision of 'tailored' performance capsules is part of Conneaut's ongoing intention for their VX2 product. As a result of some studio use of the review mic I was able to judge the somewhat subtle differences between the two capsules so far available - more later.

### **Initial Evaluation Tests**

There is a near 'average' output level, in capacitor microphone terms, from the CAD VX2 microphone. It's so much more practical in use when there are no great differences in output levels from different manufacturer's products. Overall, the basic noise floor, at the 0dB setting, is also a good average, the cardioid pattern being quieter than the other two settings, as perhaps expected by virtue of the selection arrangements.

The headroom attenuator settings do raise the basic noise floor, but these would only be used in high SPL situations anyway, above say 120dB. The polar patterns are very well defined with the expected nulls and a reasonable uniformity across the frequency range, without as much as narrowing HF, as perhaps one would expect with large diaphragms.

As usual, I made a number of basic comparisons against other microphones in my collection. The intended difference between the two capsules shows the OS-110 is 'brighter' with sources having such a content in their spectrums. The OS-125 capsule in particular very closely matches the sound of several other respectable large diaphragm microphones, all of which I would class as 'natural' sounding.

### **Early Music Use**

The opportunity came up to use the CAD VX2 to make a lot of short recordings for an Early Music

specialist, James McCafferty, which he will use on his website - [earlymusic.co.uk](http://earlymusic.co.uk). He and colleague Alan Dryer turned up with large collection of Early Music instruments - stringed Psaltery, Sittern, Rebec, Dulcimer, some wind Sackbutt, Cornett, Crumhorn, Kartholt and a Renaissance Long Drum. These are, in fact, all currently made by specialist manufacturers both in the UK and the EU.

Unusual for me, I was making single mic mono recordings! Some TC M2000 reverb was added at the mastering stage. Monitoring through to my usual ATC 20A Pros, now partnered by ATC's own Sub unit, the great range of instruments were captured with very natural sounding results, some LF EQ lift used once or twice to make up for the relatively small 'studio' space in which they were being played.

With one particularly long string instrument I took the opportunity to use the brighter output OS-110 capsule, in cardioid pattern, so placed that the resonant body was nearby, but off axis, with the distant plucked strings taking advantage of the more directional HF lift. In my usual field of working, with stereo pairing of mics, one is restricted somewhat with such nuances as the stereo pick-up must come first and the mics would be more distant for an ambient perspective.

### **Vocal Overdubs**

The CAD VX2 was equally successful with some 'backing' vocal overdubs for a couple of songs written and performed by Ian Cast. I generally prefer an omni pattern for close-up singing voice, as I would usually judge it necessary to EQ away the resultant proximity effect LF rise anyway! Ian sang adding another voice to his already mixed CDR with electric guitar, piano and bass, on which he had elsewhere recorded the lead vocal.

The VX2 with the OS-125 capsule performed very well indeed, with just a little LF roll off, with my trusty Yamaha analogue compressor as usual assisting in maintaining the intended balance against the tracking already laid down.

### **Conclusion**

I very much like the results I obtained with this CAD VX2, particularly with the OS-125 capsule. For use in my usual field of recording this combination would lend itself to being 'stereoised', as the Mid mic in an M&S pair with a suitably-placed figure of eight, as I have done with some other large capsule valve mics. The initial static tests and the recording uses I put it to show a filling-up plateau of respectable large diaphragm capacitor mics. At least due to its size, the CAD could even give the impression of apparently standing 'head and shoulders' above its collective neighbours!

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**CAD VX2 Valve Microphone £1949 incl. VAT.**



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