

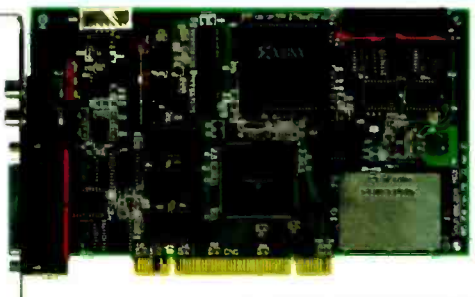
## 4-channel DI

The Radial JD4 is a 4-channel rackmounted direct box that uses Jensen audio transformers and Mogami cable, and was designed with input from the live and recording studio communities. It uses the circuitry from Cabletek's JD1 DI which is claimed to be flat to 80kHz, has a phase response that is said to be 'spot on' and is also said to be virtually impossible to overload. Entirely passive, input and through connectors have been paired on the front and back of the unit and supersonic filters on each channel reduce the noise from keyboards and computers. A PHASE REVERSE switch is included along with a STEREO SUM switch that takes a stereo output from a keyboard and sums it to mono plus a ground lift and 15dB pad. The Radial Convertible is a 50-channel audio snake that is set up in metric rows of ten. The last ten channels are paralleled with male output connectors allowing the snake to be used in a 40x10 or 24x8 configuration. The device is also equipped with a Ground Test Circuit that self-tests the 50 channels for abnormal ground hum.

Cabletek, Canada. Tel: +1 604 942 1001.

## Soundscape PCI card

A PCI digital-audio interface card and two less expensive audio I-O interfaces, the SS8IO-2 and SS8IO-3, will be released by Soundscape by the middle of the year. The card will be able to run 16 tracks of digital audio simultaneously, in and out of the computer, using 2 standard TDIF ports and will be supplied with the company's v2 Mixer Software from the SSHDR-1 Plus DAW. This will allow the use of high quality third-party plug-ins developed for the SSHDR-1 Plus, such as TC Reverb, Wave Mechanics Reverb and the Soundscape Audio Toolbox. Soundscape does not intend to provide any editing-recording software for this product—as it is intended for use with PC software, such as Sound



Forge, Cakewalk, Emagic Logic Audio, Cubase Audio & VST, SAW, Samplitude, and Cool Edit. Additionally, there are packages for the video post industry that could also use the card, including Adobe Premiere, In-Sync Speed Razor, Ulead Media Studio, Softimage DS, Montage, and DVision. The PCI card has a projected retail price of US\$700. As well as the twin TDIF ports, it has MIDI connections and optional SPDIF I-O and wordclock. The Mixer will support 32 channels of audio from the PC's >>>>

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# Manley Voxbox

Not all manufacturers are targeting the low-cost, large-sales market.

**George Shilling** evaluates Manley's 'Rolls-Royce' voice processor

**A**FTER THE HUGE number of voice channels launched in recent years, Manley arrives in this market gunning for the Rolls-Royce slot with its Voxbox. All signal paths use only valve amplification, and circuits have been carefully designed for optimal signal integrity, combining elements from previous designs but taking them further. The four main sections are mic preamp, compressor, EQ and de-esser. The extremely thick, polished metal, front panel includes the power switch, accompanied by a Ready LED that lights after about 20 seconds when the protection circuitry has done its stuff. There is a large, stylish vu meter that is accompanied by a 5-position switch to display line input, outputs and gain reductions. The remaining controls are grouped in their respective sections onto black etched panels which are bolted on to the main panel to form a huge VB—very clever.

On the rear panel, there are XLRs and TRS jacks for Line Input and Insert Input, an XLR mic input, XLR and unbalanced jack sockets for EQ Out and Preamp Out. The jack connectors bypass the input and output transformers for a subtly different sound, but still operate at +4dB. RCA phono sockets provide for compressor and de-Esser stereo linking. Circuit and chassis grounds are provided, and a fuseholder accompanies the IEC mains socket. The operating voltage is factory preset. No mains lead was provided but this review unit bears serial number 001, so, perhaps this is an oversight.

The input section features a locking toggle switch for phantom power, switchable 80Hz and 120Hz bass roll-off, and a PHASE switch: centre position selects line input. A front panel 100kΩ instrument jack overrides the rear line input. There is an INPUT pot, and a GAIN control has five positions (40dB to 50dB). Manley points out that this is not a pad, but controls the amount of negative feedback. At lower settings the sound is more clean and transistor-like. At higher settings a warmer, more 'valvey' characteristic is in evidence.

The compressor is highly unusual in that it occurs in the signal path before the mic pre-amplifier. It can be switched in without a click.

The opto-isolator is able to work at extremely low signal levels, and can actually prevent mic signal clipping before the first tube. The compression approximates to a ratio of 3:1. The ATTACK and RELEASE controls each have five positions, which look simple enough, but there is some clever circuitry behind this. Four pairs of time constants provide a high degree of control. The manual suggests settings for different uses: on the fastest attack and release, the time characteristics of the original Manley Electro-Optical Limiter are

achieved. With slower release settings, the unit takes on a degree of the auto characteristics of some units. Certain settings emulate LA-2A and LA-3A, and the overall character of the unit is smooth and gentle. The only other control is a THRESHOLD pot: there is no make-up gain control for reasons of sonic purity.

The passive EQ section includes three bands, each with 11 switchable frequencies. However, the High and Low sections are (bell-curve) boost only, and the Mid is cut only, each up to 10dB. There are no ICs, transistors or valves in the EQ section; although a tube circuit follows to make up gain lost in the EQ and De-Esser sections. This passive approach involves far fewer components than more



common active designs and therefore in theory provides a cleaner signal path. The character of the EQ seems beautifully subtle and precise. You can make large adjustments without introducing distortion and phase changes that you hear with lesser designs. The lack of any shelving bands may be off-putting, but this design prevents you from ruining a good signal. The EQ can be fed from Line In, Preamp Output or Insert, meaning that you can use it for a separate signal while something else passes through the compressor.

The De-Esser provides four frequencies which control a sliding filter and a THRESHOLD pot that controls another opto-isolator. This tames sibilance much more gently than most VCA-based de-essers, and leaves the fine detail of the original sound intact. A fifth setting provides a 10:1 limiter that is not a perfect brick-wall limiter but rather pleasantly squashes the signal with its opto circuit.

The manual appears to have been printed on recycled parchment which all adds to the rather special image that this unit projects. It goes to great lengths to explain all aspects of conception and operation—slightly long-winded in places, but revealing an expert yet open-minded approach to the design, which on paper, and in practice, outperforms most comparable units.

Criticisms? Well, none of the pots are damped, which makes them easy to knock by accident, and the mesh-type top of the unit rattles like snare-drum springs if disturbed. Apart from these niggles I found it hard to fault this unit. The compressor section, in particular, is very useful for signals other than vocals. Considering the amount of thought and care put into the Voxbox, the admittedly high price looks reasonable for such a truly high-class unit. ■

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