



OCTOPRE

With eight pristine class A Focusrite mic pre's, eight compressor/limiters, and almost all the interface options known to man, OctoPre is the perfect partner for any Digital audio workstation, making high quality, multi-channel recording (eg. Drums and synths) easy.

"The OctoPre makes an excellent companion to almost any digital recording system"
Sam Inglis Sound On Sound Sept 2002



- Eight Focusrite Class A pre amps
- Eight independent Focusrite Compressors/Limiters
- Up to 16 digital outputs (24bit, 96kHz)
- Two 'Super Channels' with TRS Jack inputs and phase reverse on the front fascia.
- No DI required
- 96 kHz ADAT Lightpipe, AES/EBU, and S/PDIF output options
- word clock synchronisation

Equally, it can be utilised as an instant location recording solution, (as part of an ultra-compact 8-channel system with a laptop,) or as an additional set of pre amps for any analogue or digital console or hard disk recorder.

Each channel boasts the award-winning pre amp featured in VoiceMaster PRO, alongside a revolutionary dynamics circuit, ensuring transparency and warmth with total control. The first two 'Super channels' also feature phase reverse, as well as TRS Jack inputs on the front fascia for quick and easy, DI-free plug-in.

Finally, the high quality digital converter options cover almost every interfacing eventuality. Up to sixteen digital outputs can run simultaneously with any mix of analogue outputs, and all the settings are adjustable, directly from the front fascia.

With this entire package fitting into a single 1U chassis, OctoPre sets the standard for multi-channel recording solutions.

Class A Pre Amp

OctoPre boasts eight of the best; the award-winning industry standard VoiceMaster pre amp, now featured in the new VoiceMaster PRO. This pre-amp demonstrates the same wide-bandwidth philosophy featured in the original Focusrite units from years past. Focusrite's custom pre-amp ensures low noise and distortion, delivering clarity and warmth without unwanted artefacts, displaying the signature sound for which Focusrite has become famous. Also found in this section are Phantom Power, a Line level switch and a high pass filter, enabling OctoPre to handle a multitude of audio sources simultaneously.

Revolutionary Dynamics Control

OctoPre features eight independent compressor/limiters, whose revolutionary circuit design allows dynamics to be handled via a single control. Starting with a brick-wall

limiter (to avoid critical overs), the rotary control then allows you to add increasing amounts of compression.

Two independent side-chain control circuits are used for each channel of dynamics, one for limiting and one for compression. The limiter and compressor side-chains each generate two separate control signals, one fast and one slow, that are then fed to the gain change elements in the audio path. The gain control elements consist of a pair of custom Optos, which follow a crossover network that splits the audio into two bands, "high" and "low". The fast side-chain drives the high frequency opto, whilst the slow side-chain drives the low frequency opto. This process ensures less distortion when the limiter is reacting to very fast transients. By splitting the response, only the high frequency section of the waveform is drastically affected, reducing inter-modulation distortion, and therefore non-related harmonics, providing a far more musical effect.

In addition, both the side-chains operate as feedback systems. Thus, the amount of compression and limiting is calculated using the level after the split opto stage. The advantage of this feedback system is that the limiter senses the level after compression has been applied and therefore the limiter only works when it absolutely has to.

The dynamics control also introduces an additional make-up gain, balancing the level change caused by compression. This auto make-up gain ensures the output level to the A/D remains constant whilst further compression is applied. Consequently, any input levels already set will not require any further adjustment during dynamics set-up.

Only one dial, but all the control, providing the quickest route to a warm, controlled, yet entirely musical signal. All the excitement and all the control without compromise.

Super Channels

OctoPre's first two channels also feature high quality instrument inputs and phase reverse, both available direct from the front fascia, avoiding the need for a separate two channel DI box. Both channels allow all three sources to be patched simultaneously, with input selection switchable direct from the front fascia, allowing the unit to be permanently racked and patched to your own specifications.

Digital Interface options

Two high quality 8-Channel A/D converters are available for OctoPre. The converters are 24 bit and 128 x over-sampled, handling sample rates of up to 96kHz, but can dither down to 20 or 16 bit. All frequency settings and bit rates can be altered from the front fascia, with an ADC lock LED to show when word clock is synchronised.

Option 1: ADAT outputs only - 8 channels of ADAT lightpipe (up to 96kHz)

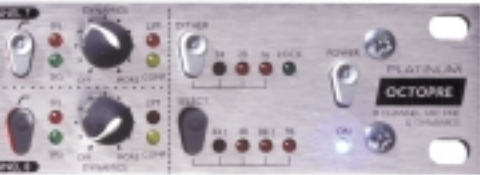
Option 2: 8 AES/EBU or S/PDIF outputs + 8 channels of ADAT lightpipe, all on one board (All up to 96kHz)

An external Wordclock input is also provided (BNC connector). The AES/EBU or S/PDIF format outputs can run simultaneously with the lightpipe outputs, giving up to 16 digital outputs at all sample rates.



"OctoPre... it's the bomb!"
Godfather of Funk - Bootsy Collins

"If recording multiple live instruments is part of your music-making process the OctoPre is without a doubt the unit to go for."
 Jon Musgrave, Future Music, October 2002



"I know of no other product that offers the same balance of features at the OctoPre's price, and it must be considered excellent value for money. As a front end for a digital recording system, it's much cheaper than comparable rackmounting alternatives. Meanwhile, compared with the option of using a budget analogue mixer for this purpose, it offers substantial advantages in terms of size, expandability, and (in many cases) sound quality, as well as offering built-in dynamics and A-D conversion. I expect Focusrite to sell bucketloads of them."
 Hugh Robjohns - Sound on Sound - September 2002

OCTOPRE SPECIFICATIONS

Inputs Electronically balanced Mic and Line Nominal level +4dBu /-10dBV	Compressor mode Yellow LED intensity increases with compression	Hard Limit mode Red LED on for Limit. Threshold = +20dBu
Input Connectors 8 XLR inputs for Mic 25 pin D-type 8 channel analogue line input connector. TRS Jack (channels one and two only)	Analogue Output 25 pin D-type 8 channel analogue line output connector.	Digital Output Option 1: 8 channels on lightpipe, ADAT format (up to 24 bit, 96kHz) Option 2: 8 channels of S/PDIF, 8 channels of AES/EBU (on the same 9-pin D-type) and 8 channels on lightpipe ADAT, all running at up to 24bit, 96kHz (can dither down).
Panel Controls Phantom Power +48V On/Off Gain (mic) 0dB to 60dB (line) -10dB to +10 dB (instrument) 0dB to 60dB (Impedance > 1M Ω)	Performance specifications THD 0.002% Mic EIN -128 dB@60dB of gain with 150 Ωsource impedance	Frequency response -1dB@10 Hz to -3dB@200 kHz
Phase Reverse (1 and 2 only) On/Off High Pass filter -12dB/octave -3dB@75 Hz	Dimensions 480mm (w)x 44 mm (H)x 265 (D)	Weight 4.2 Kg
Dynamics Compressor threshold and ratio is variable Sample rate Switchable (44.1, 48, 88.2, 96kHz) 24, 20 or 16 bit		
Dither Metering Signal Present -20dBu Over Load +22dBu		



Focusrite A/D's

With converters, as with many other things in life "It's not how big it is, but what you do with it that counts". Whether running at 44.1, 48, 88.2, 96 or 192 kHz, or at 16, 20 or 24bit rates, the converter specifications alone are no measure of the quality of the record signal path. Rather, it is a combination of both the converter specifications and the quality of the system that supports it. Focusrite A/D converter cards are designed to meet the absolute maximum design specifications possible for the converter chip-sets used. However the real benefit comes from using a recording system in which the ADC is included within the closed environment of a single box. The integral closed environment allows a shorter record path to digital, with no unnecessary analogue connections out of the Focusrite box to the input of the recording equipment. (The receiving equipment will also certainly include

more analogue circuitry in the form of gain/trim stages before the external ADC, only further lengthening the record path.)

A further benefit of a single, closed environment relates to the level of unwanted noise in the vicinity of the converter circuitry. Because the Focusrite unit operates as an analogue device right up to the point of the ADC, the environment within which the converter operates is extremely quiet and controlled. It does not contain extraneous clocks, nor other sources of digital noise, which exist within many digital desks and multi I/O DSP environments. Any of these may further contribute to the lack of clarity and accuracy.

So, innovative circuitry around the converter, the operation of the circuitry within the host unit, the shorter signal path and a quieter operational environment mean that Focusrite's optional A/D converters offer an immense level of performance for the price.

