



valve classics

VP-1 mono valve processor

overview

In recent years, the analogue voice processor has become an indispensable direct link between microphone and multitrack recorder, enabling engineers to capture the highest quality vocal sound on tape or hard disc - without the compromises in sound quality that most mixing consoles impose. Going straight to multitrack through a well designed voice processor has unlocked the true potential of microphones and transformed the sound of modern vocal recordings.

At TL Audio we've long recognised the benefits of this approach, having included high quality mic preamps on every Valve Classics product since the original EQ-1 Dual Valve Equaliser was launched in 1993.

The new VP-1 is the latest addition to the Valve Classics range, and combines all the best elements of the PA-1 pentode preamp, C-1 compressor and EQ-2 parametric equaliser to create a truly flexible and spectacular sounding valve front end for any audio system.

complete processing solution

The VP-1 is the complete analogue processing solution and is packed with extra features including :

- ▶ Valve and class A preamp stages
- ▶ Valve and optical compression circuits
- ▶ Expander/gate
- ▶ High quality de-esser
- ▶ Optical peak limiter
- ▶ Optional 24/96 digital output

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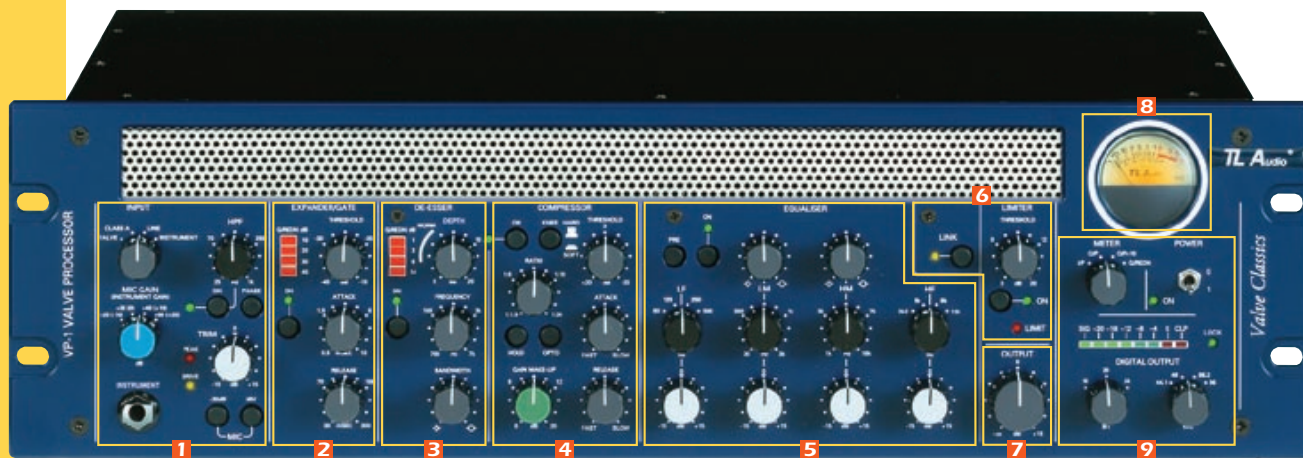


valve stages

The VP-1 features seven valve stages, run from a stabilised 250v DC supply. The first stage is a Siemens EF86 pentode in the front end of the preamp, followed by six Sovtek ECC83/12AX7A stages - one in the secondary stage of the preamp, one in the compressor and four in the EQ section.

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TLAudio®



1 Preamp	
Input gain:	variable between +5dB and +65dB (including +/-15dB trim)
Variable high pass filter:	25Hz to 1kHz (12dB/octave)
2 Expander/Gate	
Threshold:	variable between -40dBu and -10dBu
Attack:	variable between 0.5mS and 10mS
Release:	variable between 30mS and 300mS
3 De-esser	
Depth:	variable between 0 and +20dB
Frequency:	variable between 700Hz and 7kHz
Bandwidth:	variable between 'narrow' and 'wide'
4 Compressor	
Threshold:	variable between -20dB and +20dB
Ratio:	variable between 1:1.5 and 1:30
Attack:	variable between 0.5mS and 50mS
Release:	variable between 40mS and 4S
Gain Make-Up:	variable between 0 and +20dB
5 Equaliser	
LF band:	+/-15dB shelving @ 60Hz, 120Hz, 250Hz and 500Hz (12dB/octave)
LM band:	+/-15dB parametric, variable between 30Hz and 3kHz (Q variable between 0.7 and 7.0)
HM band:	+/-15dB parametric, variable between 1kHz and 18kHz (Q variable between 0.7 and 7.0)
HF band:	+/-15dB shelving @ 2.2kHz, 5kHz, 8kHz and 12kHz (12dB/octave)
6 Limiter	
Peak Threshold:	variable between 0 and 20dB
7 Digital Output (optional)	
Bit rate:	16, 20 or 24 bit
Sample rate:	44.1, 48, 88.2 or 96kHz
AES/EBU, SPDIF and optical outputs, Wordclock input	
8 Connections	
Mic input:	Balanced XLR
Line input:	Balanced XLR (+4dBu), Unbalanced jack (-10dBu)
Insert point (post preamp):	Unbalanced jack (tip=send, ring=return)
Sidechain insert:	Unbalanced jack (tip=send, ring=return)
Stereo link:	Unbalanced jack
Line output:	Balanced XLR (+4dBu), Unbalanced jack (-10dBu)
AES/EBU output (optional):	XLR
SPDIF output (optional):	RCA phono
Optical output (optional):	Toslink
9 Power: 110-120V or 220-240V AC @ 35VA	
Dimensions: 483mm x 250mm x 132mm (3U full rack width)	
Shipping Weight: 9 kgs	

The figures represent typical values for signal paths stated.

tour of the front panel

- 1 Depth and detail are the characteristics of the Preamp stage, which accepts mic, instrument and line level signals. The mic input is transformer balanced and offers a choice of pentode valve (as in the PA-1 pentode preamp) or class A signal paths. Switchable phantom power, phase reverse, 30dB pad and variable high pass filter are provided. Input gain is variable in 10dB steps with a 15dB trim control, and Drive and Peak LEDs indicate the level of valve drive and clipping respectively.
- 2 The Expander/Gate section offers precise and responsive VCA control of signal dynamics, and features fully variable adjustment of threshold, attack and release. This stage is bypassable for easy A/B comparison, and a four segment bar graph meter indicates the degree of gain reduction.
- 3 The De-esser stage employs high quality VCAs to allow effective but natural reduction of sibilance. De-esser depth, frequency and bandwidth are all fully variable. The de-esser section has a bypass switch and status LED, and a four segment bar graph meter indicates the amount of de-esser gain reduction.
- 4 The super-smooth Compressor stage comes with both valve (as in the C-1 compressor) and optical compression circuits, and offers control of threshold, ratio, attack, release and gain make-up. Both hard and soft knee characteristics are provided, and a switchable 'Hold' circuit reduces LF distortion. The compressor section is bypassable for easy A/B comparison.
- 5 Sweetness and warmth comes via the four band valve EQ section, which utilises four frequency LF/HF shelving as per the original EQ-1 equaliser, with two fully parametric mids identical to the EQ-2. The EQ can be switched 'pre' or 'post' the compressor stage. The EQ section is bypassable.
- 6 The output limiter employs an optical gain control stage with adjustable threshold to provide responsive yet natural control of output peaks - making it ideal for preventing overload in digital recorders. The limiter is bypassable and an 'active' LED indicates when limiting is taking place. A stereo link switch is provided - this allows two VP-1s to be joined for stereo operation, and ensures that the compressor and limiter control voltages of the two units are linked, thus preventing image shift.
- 7 An output level control offers full attenuation through to +15dB of gain - thus acting as an output fader for direct-to-multitrack recording.
- 8 A large back-lit VU meter can be switched to read input gain, output gain and gain reduction. An 'o/p +10' setting pads the meter reading down by 10dB to permit very high output levels to be effectively monitored.
- 9 The optional digital output comes with variable word length and sample rate, supporting up to 24bit/96kHz, in AES, SPDIF and optical formats. A wordclock input is provided and metering is included for output level and for External Lock confirmation.



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