

AVALON DESIGN



PURE CLASS A MUSIC RECORDING SYSTEMS



DIRECT SIGNAL PATH

The Avalon VT-737 SP features a combination of TUBE preamplifiers, opto-compressor, sweep equalizer, output level and VU metering in a 2U space. The VT-737 SP preamplifier has three input selections: 1. Transformer balanced microphone input, +48v phantom selection. 2. Instrument DI high source input with jack located on front panel. 3. Balanced line input, discrete high-level Class A. The high-performance preamplifier utilizes two cascaded, dual vacuum tube triodes configured with minimum negative feedback. A high gain switch boosts the overall gain of the preamplifier. The four high quality tubes are configured as singled ended anode coupled followers. A passive-variable high pass filter and hard-wire relay bypass completes the input signal conditioning. The phase reverse relay is available on all three inputs

OPTO-COMPRESSOR

The opto-compressor features a minimum signal path design with twin Class A vacuum tube triodes for gain matching. The optical attenuator acts as a simple passive level controller. Full dynamic control from soft compression to hard-knee limiting can be achieved with threshold, ratio-compression, attack and release controls plus gain reduction selection on the large VU meter.

Special spectral control including de-ess is available with the dual sweep mid EQ to sidechain switch. The EQ section can be flipped pre or post the opto-compressor via a front panel switch for alternate effects and tone shaping. Two VT-737 SP's can be linked via a rear panel link cable for stereo tracking. The compressor bypass is a sealed silver relay for the most direct signal path

EQUALIZER

The VT-737 SP equalizer utilizes 100% discrete, Class A-high-voltage transistors for optimum sonic performance. The high and low frequency bands provide the smooth characteristics of an all passive design, while the dual mid bands include variable frequency and switched Q-width selection. The enhanced range of the mid bands is extended into the high and low bands by the use of X10 frequency multipliers. The bypass switch incorporates a sealed silver relay for the most direct signal path. When the EQ to sidechain is engaged, the high-low EQ remains in the audio path for tone enhancement. The output level control provides a variable control of the overall signal path. The output amplifier utilizes another dual triode vacuum tube driving a 100% discrete, Class A, high-current, balanced and DC coupled low noise output amplifier.

VT-737SP

MONO CLASS A, VACUUM TUBE-DISCRETE
PREAMP-OPTO-COMPRESSOR-EQUALIZER

VT-737SP FEATURES

- Minimal signal path design
- Four Class A vacuum tube triodes
- Transformer balanced microphone input
- EQ to sidechain for de-ess
- High-voltage circuits + 200v
- Headroom to +30dB
- Low noise -92dB
- Internal discrete power supply
- Soft-start tube life extender
- Stereo link
- All discrete Class A equalizer
- Sealed silver relays
- Professional VU meter

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V T - 7 3 7 S P S P E C I F I C A T I O N S

Circuit topology	Four dual triode vacuum tubes, high-voltage discrete Class A
Gain range	Microphone: Transformer balanced 850 ohm, 0dB to +58dB Instrument: Unbalanced 1 meg ohm, 0dB to +30dB Line: Balanced Class A, 20k ohms, -27dB to +18dB
Maximum input level and connector types	Microphone +16dB @ 25Hz, +30dB @ 1kHz balanced XLR, pin2 hot Instrument +30dB unbalanced front panel jack socket Line +36dB balanced XLR, Pin 2 hot
Maximum output level	+30dB balanced 600 ohms, DC coupled, pure Class A
Output type and gain	XLR connector, output trim gain -45dB to +10dB
Noise 20kHz unweighted	-92dB
Noise microphone EIN	-116dB, 22Hz to 22kHz unweighted
Distortion THD, IMD	0.5%
Frequency response +/-0.5dB	10Hz to 120kHz input filter included
Frequency response -3dB	1 Hz to 200kHz line in-out
VU meter and gain reduction	0VU = +4dB and gain reduction to -20dB
High cut filter	Variable 6dB per octave 40Hz to 200Hz
Compressor type	Optical passive attenuator incorporating twin vacuum tubes and stereo link
Threshold - Ratio	Threshold variable -30dB to +20dB, ratio-compression variable 1:1 to 20:1
Attack - Release	Attack variable 2mS to 200mS, release variable 100mS to 5 seconds
Equalizer type	Discrete Class A, variable active and switched passive design
Frequency bands (4)	Treble - switched 10kHz,15kHz, 20kHz, 32kHz, +/- 20dB range, shelf High mid - variable 200Hz to 2k8Hz and 2kHz to 28kHz, +/- 16dB range, hi-lo Q Low mid - variable 30Hz to 450Hz and 300Hz to 4k5Hz, +/- 16dB range, hi-lo Q Bass - switched 15Hz, 30Hz, 60Hz, 150Hz, +/- 24dB range, shelf
AC power	Internal toroidal 100v to 240v, 50-60Hz selectable, 75 watts maximum
Dimensions	19 x 12 x 3.5 in (482 x 305 x 89mm)
Weight	22 lbs (10kg)
Dimensions-shipping carton	21 x 18 x 8 in (533 x 457 x 203mm)
Weight-packed	261bs (11.8kg)

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Avalon reserves the right to incorporate changes in design and in the specifications of this product without prior notice.