Siegmund Simplex Vintage Compressor

Micro Tube Microphone and Instrument Preamp

Front Panel Features:

48V Phantom Power Provides 48 Vdc to power condenser microphones. LED illuminates when active.

-20dB / 0dB Pad Lowers the signal at the microphone input by 20 dB for loud input sources.

+ / - Polarity Reverses the polarity at the microphone input for phase matching when more than one microphone is used in a mix.

Impedance Control Adjusts the input impedance and sensitivity.

Gain Control Adjusts the amount of gain.

Comp Control Adjusts the amount of Compression

Output Control Adjusts the amount of headroom.

Siegmund Simplex Vintage Compressor

Micro Tube Microphone and Instrument Preamp

Rear Panel Features:

AC Power Input For wall power of 110-120 or 220-240Vac

Power On/Off Turns the unit on or off. The VU meter lights up when turned on.

Instrument Output 1/4" high impedance output.

Balanced XLR Output Transformer balanced output with pin 2 positive, pin 3 negative and pin 1 ground.

Ground Lift Disconnects the chassis ground to pin 1 of the XLR output to prevent ground loop hum and noise.

Balanced TRS (unbalanced TS Output) Transformer balanced with tip positive, ring negative and sleeve ground. With a mono cable the signal is TS unbalanced with tip positive and sleeve ground.

Instrument Input 1/4" high impedance input.

Microphone input Transformer balanced XLR with pin 2 positive, pin 3 negative and pin 1 ground. 48V phantom power when active is supplied to pin 2 and 3.

Siegmund Simplex Vintage

Micro Tube Microphone and Instrument Preamp

Specifications:

Voltage Gain (continuous):	Microphone: 90 dB Instrument: 80 dB
Input Impedance:	Microphone: Variable sweep 0 to 10K Ω Instrument: Variable sweep 0 to 500K Ω
Output Impedance:	600 Ω
Maximum Output Level:	+23 dBu
Frequency Response:	20 Hz to 20 kHz
VU Meter calibration:	+4 dBu/1.228 Vac at 0 dB/100%
Chassis:	10 x 6 x 2 inches

Operation:

Connect the output to a recording device or mixing console. After switching on the power, turn any or all of the knobs fully counter clockwise and turn the 48V phantom power off. Connect a microphone or instrument to the input and turn the phantom power on for powered condenser microphones.

With normal operation keep the Output knob fully clockwise to obtain the most clean headroom and detail. Adjust the Input knob to regulate sensitivity and impedance of the input signal, starting at the center position.

When sending a signal to a device with fixed input, increase Gain knob until optimum recording level is reached. When sending a signal to a device with variable input, turn the level control of that device to the center position and set the Gain knob until optimum recording level is reached.

Adjust the Compressor knob for desired compression and sustain.

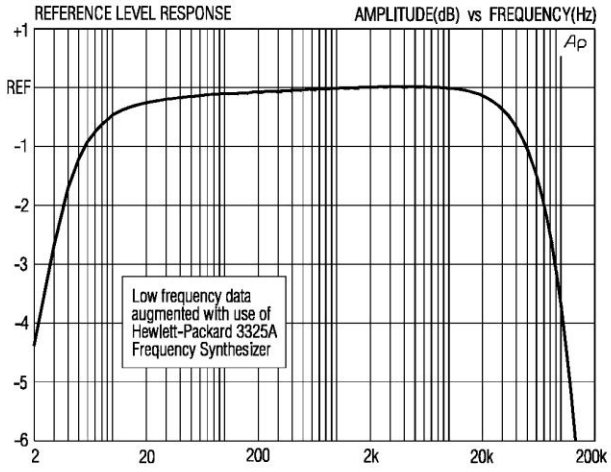
With higher input signals at the microphone, like from guitar amplifiers, activate the –20 dB pad switch to prevent overloading the first gain stage.

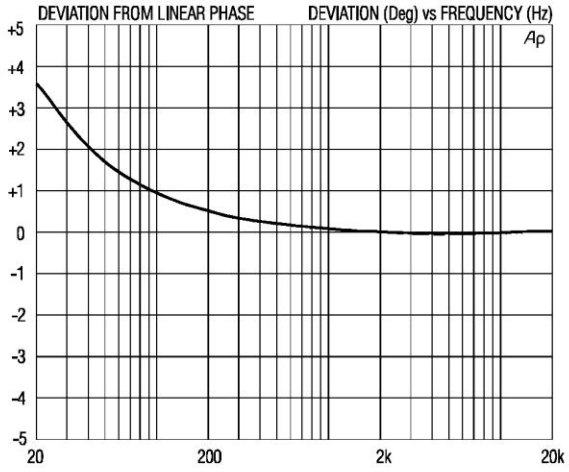
When using more than one microphone, switch the polarity switch in both positions and use the setting that gives the mixed signal a fuller bass frequency response.

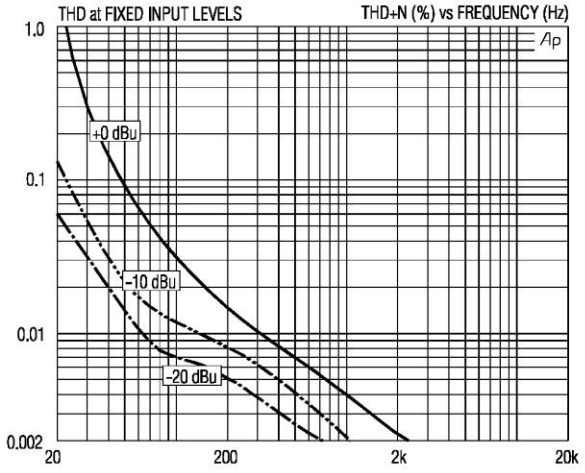
The Output control can be decreased to alter the character of the signal for a fatter response with less definition and if desired, to introduce mild or heavier distortion with increased Gain knob settings.

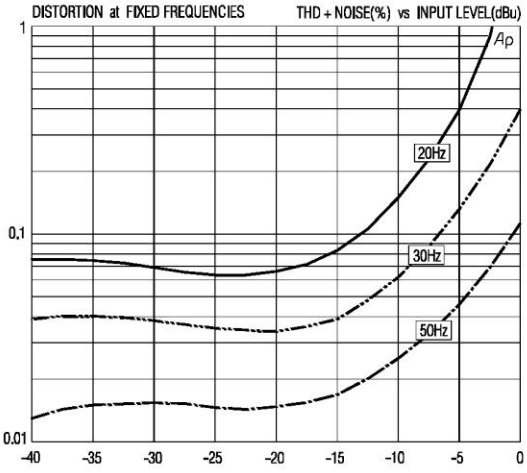
Try the Ground lift switch in both positions and use the setting that eliminates hum and noise.

Siegmund Simplex Input Transformer

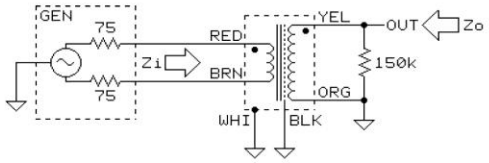




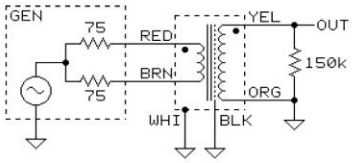




PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
Input impedance, Zi	1 kHz, –20 dBu, test circuit 1	1.33 kΩ	1.40 kΩ	1.47 kΩ
Voltage gain	1 kHz, –20 dBu, test circuit 1	19.65 dB	19.75 dB	19.85 dB
Magnitude response, ref 1 kHz	20 Hz, –20 dBu, test circuit 1	–0.50 dB	–0.26 dB	±0.0 dB
	20 kHz, –20 dBu, test circuit 1	–0.25 dB	–0.13 dB	+0.1 dB
Deviation from linear phase (DLP)	20 Hz to 20 kHz, –20 dBu, test circuit 1		+3.5/–0°	±5.0°
Distortion (THD)	1 kHz, –20 dBu, test circuit 1		0.001%	
	20 Hz, –20 dBu, test circuit 1		0.065%	0.15%
Maximum 20 Hz input level	1% THD, test circuit 1	–4 dBu	–2.5 dBu	
Common-mode rejection ratio (CMRR) 150 Ω balanced source	60 Hz, test circuit 2		110 dB	
	3 kHz, test circuit 2	70 dB	78 dB	

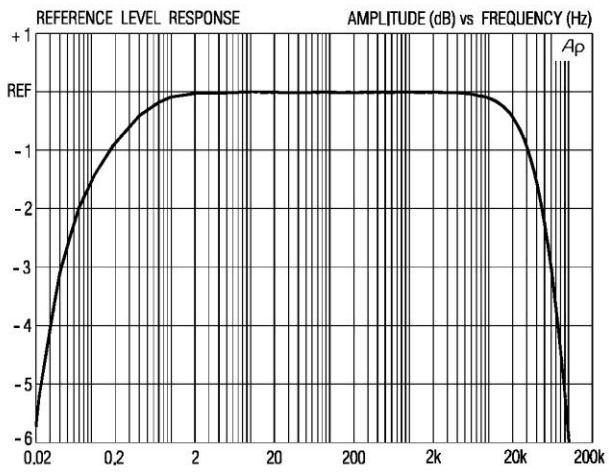


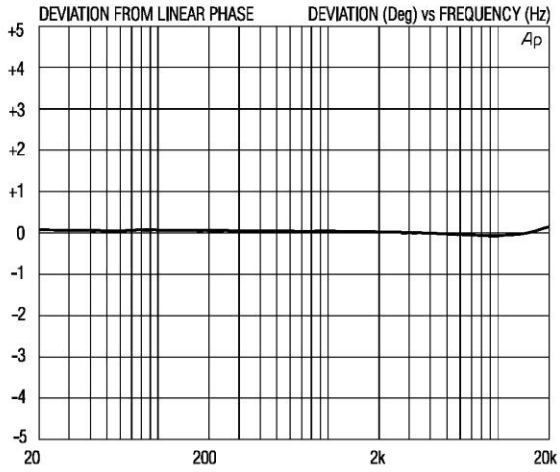
TEST CIRCUIT 1

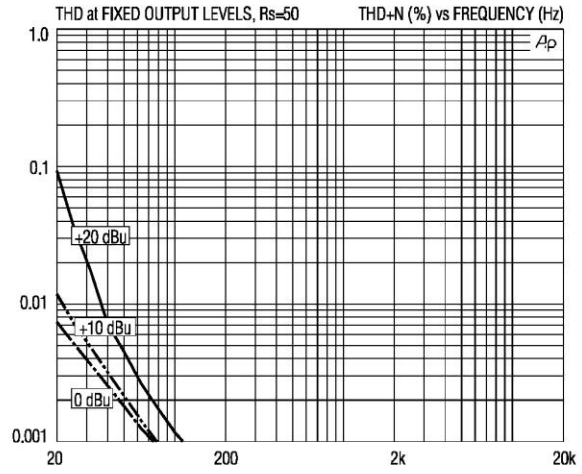


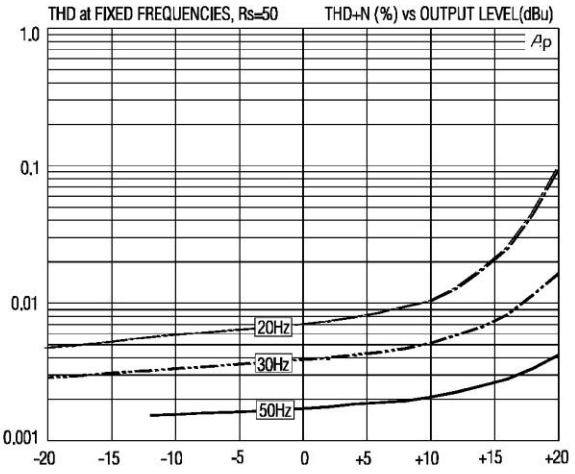
TEST CIRCUIT 2

Siegmund Simplex Output Transformer

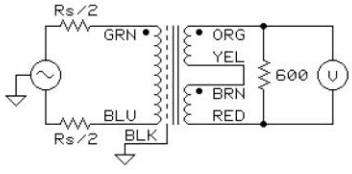




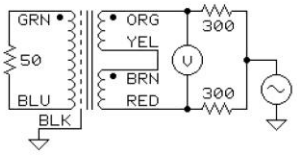




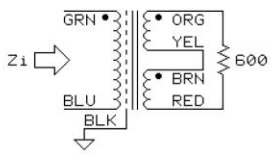
PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
Input impedance, Zi	1 kHz, 0 dBu, test circuit 3	10.0 kΩ	11.5 kΩ	13.0 kΩ
Voltage gain	1 kHz, 0 dBu, test circuit 1	−13.8 dB	−13.4 dB	−13.0 dB
Magnitude response, ref 1 kHz	20 Hz, 0 dBu, test circuit 1, Rs=50 Ω	−0.1 dB	−0.01 dB	0.0 dB
	20 kHz, 0 dBu, test circuit 1, Rs=50 Ω	−0.5 dB	−0.37 dB	0.0 dB
Deviation from linear phase (DLP)	20 Hz to 20 kHz, 0 dBu, test circuit 1, Rs=50 Ω		+0.2/−0.1°	±2.0°
Distortion (THD)	1 kHz, +4 dBu, test circuit 1, Rs=50 Ω		<0.001%	
	20 Hz, +4 dBu, test circuit 1, Rs=50 Ω		0.008%	0.05%
	1 kHz, +4 dBu, test circuit 1, Rs=600 Ω		<0.001%	
	20 Hz, +4 dBu, test circuit 1, Rs=600 Ω		0.020%	
Maximum output level	20 Hz, 1% THD, test circuit 1, Rs=50 Ω	+21 dBu	+23 dBu	
Common-mode rejection ratio (CMRR)	60 Hz, test circuit 2		114 dB	
	3 kHz, test circuit 2	70 dB	80 dB	



TEST CIRCUIT 1



TEST CIRCUIT 2



TEST CIRCUIT 3