

567

P.A. PROCESSING SYSTEM



FEATURES:

- 10 Band Graphic Equalizer
- Four Post Feedback Suppressor
- Electronic Crossover
- Input Preamp
- Pink Noise Generator
- LED Headroom Indicators

The Model 567 P. A. Processing System has been designed to satisfy the requirements for signal processing in many of public address and sound reinforcement installations. It is particularly cost-effective in church, small auditorium, and portable concert systems, where economic constraints preclude full $1/3$ -octave equalization and/or elaborate tuning.

The 567 includes in one compact rack-mount package: an input amplifier/gain control, level monitor, pink noise source for setup, 10-band Graphic Equalizer, four-frequency Feedback Suppressor, and a 2-way Electronic Crossover with continuously adjustable crossover frequency point.

The system is designed to operate at any nominal level from -20 dB (Ref. 0.775 V), allowing use with low

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ELECTRONIC
PRODUCTS**

level mixers, high or low impedance, balanced or single-ended circuits.

A rear panel patch point is provided to allow insertion of other signal processing equipment (such as a limiter or compressor) between the Feedback Suppressor and the Electronic Crossover sections.

An automatic delay circuit protects the sound system against damage from transients during the time when the power is turned on.

TECHNICAL SPECIFICATIONS

ELECTRICAL:

INPUT:	Balanced, bridging differential amplifier.
Input Impedance:	40 kohms balanced, 20 kohms unbalanced.
Maximum Input Level:	+20 dB
Gain:	Variable -10 dB to +20 dB with front panel LEVEL control.
Noise Source:	Front panel PROGRAM/ NOISE switch selects either input program, or internal pink noise generator for system setup.
Headroom Indicator:	4 LED indicators showing maximum signal levels: 0, -10, -20, -30 dB relative to overload, monitored at all critical circuit points.
GRAPHIC EQUALIZER:	10 bands, one octave.
Range of Boost and Cut:	0 to ± 10 dB, single filter section.
Center Frequencies:	Standard ISO, (Hz) 31.5, 63, 125, 250, 500, 1k, 2k, 4k, 8k, 16k.
Filter Bandwidth:	One octave at -3 dB points with 8 dB boost or cut.
Filter Type:	2 pole synthesized LC.
Bypass:	EQUALIZER IN/OUT switch allows graphic equalizer section to be bypassed.
FEEDBACK SUPPRESSOR:	4 notch filters, frequency tunable.
Frequency Range:	60 Hz to 6 kHz, continuously variable in two ranges.
Notch Depth:	0 to -20 dB continuously variable.
Filter Bandwidth:	Approx. 1/6 octave at 5 dB notch depth (3 dB points).
Bypass:	SUPPRESSOR IN/OUT switch allows feedback suppressor to be bypassed.
Set-up/Operate:	Toggle switch activates clipper to protect loudspeakers during adjustment of feedback suppressor.

ELECTRONIC CROSSOVER:	12 dB per octave filter slope.
Crossover Frequency:	Continuously adjustable from 500 Hz to 5 kHz.
Filter Type:	State variable, 2 pole butterworth.
Level Controls:	Independent high and low frequency output attenuators. Range from unity to -50 dB.
OUTPUTS (2):	High and Low frequency outputs from the crossover section. The Low frequency output may be switched to provide full audio spectrum.
Output Circuit:	Floating, transformer isolated; activated 6 seconds after power turn-on.
Output Load:	150 ohms or greater.
Power Output:	+24 dBm into 600 ohm load +20 dB into 150 ohm load
Distortion:	Less than 0.5% THD 30 Hz to 15 kHz at maximum rated output.
Frequency Response:	Full Spectrum ± 1 dB, 20 Hz -20 kHz. High Frequency ± 1 dB, 20 kHz, lower cutoff frequency adjustable. Low Frequency ± 1 dB 20 Hz, upper cutoff frequency adjustable.
Output Noise:	Less than -85 dBm (15.7 kHz bandwidth, input and output terminated with 600 ohms, controls set for unity gain).
PATCH POINT:	Signal path between feedback suppressor and electronic crossover may be broken by removal of jumper on rear panel terminal strip for insertion of other signal processing equipment, such as a limiter.
Output:	100 ohm resistive, unbalanced.
Nominal Output:	+4 dB with input LEVEL set for 16 dB headroom.
Maximum Output:	+20 dB into 10 kohm load or greater; +14 dBm into 600 ohm load.
Input Impedance:	100 kohm.
Input Level:	+4 dB nominal; +20 dB maximum.
POWER REQUIREMENTS:	100-125 VAC, or 200-250 VAC, 50/60 Hz, switch selectable, less than 10 W.
ENVIRONMENT:	Operating 0°C to +50°C. Storage -20°C to +60°C.
CONNECTIONS:	Input and outputs on rear panel barrier strips and 3-pin XLR/QG connectors. Patch point on barrier strip.

PHYSICAL:

Dimensions:	483 x 89 mm rack panel, depth behind panel 248 mm, (19" x 3 1/2" x 9 3/4").
Finish:	Panel is 3.18 mm (1/8") brushed clear anodized aluminum in two shades. Chassis is cadmium plated steel.
Weight:	4.54 kg (10 pounds).
Shipping Weight:	6.35 kg (14 pounds).
Accessory:	Model SC-2 Security Cover; smoke gray transparent plastic; covers all operating controls.

NOTE: 0 dBm = 0.775 volt/600 Ω = 1mW
0 dBu = 0.775 volt/load not specified

