SUPERIOR LISTENING SYSTEMS
AUDIO CLARITY REDEFINED

Processor Settings

Model LS9900 / LS9900T

Crossover

	Frequency	Slope
LF w/o subwoofer - HPF	40Hz	24dB Oct. Butterworth
LF w/subwoofer - HPF	80Hz	24dB Oct. Butterworth
LF - LPF	315Hz	24dB Oct. Linkwitz/Riley
MF - HPF	315Hz	24dB Oct. Linkwitz/Riley
MF - LPF	1,410Hz	24dB Oct. Linkwitz/Riley
HF - HPF	1,410Hz	24dB Oct. Linkwitz/Riley

Equalization

	Frequency	BW*	Q	Level
LF	165Hz	.5	2.87	-4dB
MF	908Hz	.35	4.1	-9dB
HF	2,245Hz	.25	5.76	-3dB
HF	16,000Hz	.5	2.87	+4dB

Equalization Settings were developed in an anechoic environment

Delay

	Time	Polarity
LF	none	positive
MF	none	positive
HF	.41 msec	positive

Some DSP units will change the propagation delay for each output depending on how much processing is on that channel

Limiting

See Application Note "Setting System Limiters"

	RMS Voltage
LF	64 Volts, 45 msec attack, 720 msec release, 100:1 ratio (recommended predictive peak stop @ 126 Volts or amp clipping)
MF	89 Volts, 2 msec attack, 32 msec release, 100:1 ratio (recommended predictive peak stop @ 178 Volts or amp clipping)
HF	40 Volts, 30 msec attack, 480 msec release, 100:1 ratio (recommended predictive peak stop @ 100 Volts or amp clipping)

Gain

LF	0
MF	0
HF	-3dB

Assumes amplifiers have equal voltage gain

* BW Disclaimer

Different DSP processor manufactures are not consistent in their implementation of digital parametric EQs. The SLS recommended filters will not be replicated by all DSP devices. If the DSP device that is used continuously varies the Q value of the filter depending on the +/- dB level, the DSP will not match our settings. (Most of these devices do not allow filter Q to be shown at all.)

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