



Processor Settings
Model LS9000

Crossover

	Frequency	Slope
LF w/o subwoofer - HPF	50Hz	24dB Oct. Butterworth
LF w/subwoofer - HPF	80Hz	24dB Oct. Butterworth
LF - LPF	264Hz	24dB Oct. Butterworth
MF - HPF	306Hz	24dB Oct. Butterworth
MF - LPF	1,224Hz	24dB Oct. Butterworth
HF - HPF	1,224Hz	24dB Oct. Butterworth

Equalization

	Frequency	BW*	Q	Level
LF (Optional)	85Hz	.333	4.32	+4dB
LF	210	.5	2.87	-9dB
LF	242	.42	3.42	-2dB
MF	917Hz	.333	4.32	-6dB
MF	1,374Hz	.125	11.5	-7dB
MF	1,587Hz	.05	28.8	-15dB
HF	1,633Hz	.125	11.5	-4dB
HF	4,000Hz	.5	2.87	+5dB
HF	14,200Hz	.5	2.87	+9dB

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

	RMS Voltage
LF	64 Volts, 16 msec attack, 256 msec release, 100:1 ratio (recommended predictive peak stop @ 126 Volts or amp clipping)
MF	64 Volts, 2 msec attack, 32 msec release, 100:1 ratio (recommended predictive peak stop @ 126 Volts or amp clipping)
HF	20 Volts, 30 msec attack, 480 msec release, 100:1 ratio (recommended predictive peak stop @ 50 Volts or amp clipping)

With Ribbon TPAC installed — **NO RMS LIMITING REQUIRED (Transparent Protection Audio Circuit)**
(for very high SPL applications, a predictive peak stop limiter @ 50 Volts is recommended)

See Application Note "Setting System Limiters"

Gain

LF	0
MF	-2dB
HF	-4dB

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.)