Loudspeaker DSP settings for SH96HO Passive – 2 Ohm LF

The settings provided in this document are the DSP settings that are used in the DNA series products available from Danley Sound Labs. These settings or more advanced proprietary settings are available by default with the purchase of those products. The DSP settings itemized below are being made available to provide a starting point for third party DSP processing. When using any third party DSP processing, some adjustment of the filters, particularly EQ bandwidth, may be necessary.

Please be certain to disconnect the loudspeaker before setting the limiters. Nobody wants to hear that racket and damage to the loudspeakers is practically guaranteed and unnecessary. If the amplifier used is unable to reach the output voltage listed for the loudspeaker before reaching amplifier output clip, set the limiter to engage before the amplifier output clips.

Crossover:

Polarity: Normal

Relative Gain (assumes amplifiers with equal gain): 0 dB

Relative Delay (in box crossover alignment only): 0 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	45	24	Butterworth
Low Pass Filter	20000	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	174	0.400	3.60	-9.0
EQ 2	2800	0.300	4.80	-3.0
EQ 3	595	0.400	3.60	-3.0
EQ 4	1040	0.400	3.60	-9.0
EQ 5	8500	0.308	4.68	+1.0
EQ 6	1820	0.356	4.04	-4.0
EQ 7	5150	0.445	3.23	-5.4

Limiters:

RMS Limiter: 75 Volts

Thermal Limiter: 40 Volts, 1.0 Seconds Attack, 1.0X Release (multiplier of Attack)

XMax Limiter: 70 Volts at 40 Hz

Loudspeaker DSP settings for SH96HO Passive – 8 Ohm LF

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Please be certain to disconnect the loudspeaker before setting the limiters. Nobody wants to hear that racket and damage to the loudspeakers is practically guaranteed and unnecessary. If the amplifier used is unable to reach the output voltage listed for the loudspeaker before reaching amplifier output clip, set the limiter to engage before the amplifier output clips.

Crossover:

Polarity: Normal

Relative Gain (assumes amplifiers with equal gain): 0 dB

Relative Delay (in box crossover alignment only): 0 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	45	24	Butterworth
Low Pass Filter	20000	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	174	0.400	3.60	-9.0
EQ 2	2800	0.300	4.80	-3.0
EQ 3	595	0.400	3.60	-3.0
EQ 4	1040	0.400	3.60	-9.0
EQ 5	8500	0.308	4.68	+1.0
EQ 6	1820	0.356	4.04	-4.0
EQ 7	5150	0.445	3.23	-5.4

Limiters:

RMS Limiter: 150 Volts

Thermal Limiter: 80 Volts, 1.0 Seconds Attack, 1.0X Release (multiplier of Attack)

XMax Limiter: 140 Volts at 40 Hz

Loudspeaker DSP settings for SH96HO Biamp 2 Ohm LF

The settings provided in this document are the DSP settings that are used in the DNA series products available from Danley Sound Labs. These settings or more advanced proprietary settings are available by default with the purchase of those products. The DSP settings itemized below are being made available to provide a starting point for third party DSP processing. When using any third party DSP processing, some adjustment of the filters, particularly EQ bandwidth, may be necessary.

Please be certain to disconnect the loudspeaker before setting the limiters. Nobody wants to hear that racket and damage to the loudspeakers is practically guaranteed and unnecessary. If the amplifier used is unable to reach the output voltage listed for the loudspeaker before reaching amplifier output clip, set the limiter to engage before the amplifier output clips.

Low Frequency Section

Crossover:

Polarity: Normal
Relative Gain (assumes amplifiers with equal gain): -0.4 dB
Relative Delay (in box crossover alignment only): 0 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	45	24	Butterworth
Low Pass Filter	300	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	139	0.300	4.80	-6.0
EQ 2	200	0.330	4.36	-8.0

Limiters:

RMS Limiter: 70 Volts
Thermal Limiter: 40 Volts, 2.0 Seconds Attack, 1.0X Release (multiplier of Attack)
XMax Limiter: 60 Volts at 45 Hz

High Frequency Section

Crossover:

Polarity: Normal
Relative Gain (assumes amplifiers with equal gain): 0 dB
Relative Delay (in box crossover alignment only): 1.55 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	350	24	Butterworth
Low Pass Filter	20000	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	2800	0.300	4.80	-3.0
EQ 2	595	0.400	3.60	-3.0
EQ 3	1040	0.400	3.60	-9.0
EQ 4	8500	0.308	4.68	+1.0
EQ 5	1820	0.356	4.04	-4.0
EQ 6	5150	0.445	3.23	-5.4

Limiters:

RMS Limiter: 56 Volts
Thermal Limiter: 30 Volts, 0.5 Seconds Attack, 1.0X Release (multiplier of Attack)
XMax Limiter: 50 Volts at 347 Hz

Loudspeaker DSP settings for SH96HO Biamp 8 Ohm LF

The settings provided in this document are the DSP settings that are used in the DNA series products available from Danley Sound Labs. These settings or more advanced proprietary settings are available by default with the purchase of those products. The DSP settings itemized below are being made available to provide a starting point for third party DSP processing. When using any third party DSP processing, some adjustment of the filters, particularly EQ bandwidth, may be necessary.

Please be certain to disconnect the loudspeaker before setting the limiters. Nobody wants to hear that racket and damage to the loudspeakers is practically guaranteed and unnecessary. If the amplifier used is unable to reach the output voltage listed for the loudspeaker before reaching amplifier output clip, set the limiter to engage before the amplifier output clips.

Low Frequency Section

Crossover:

Polarity: Normal
Relative Gain (assumes amplifiers with equal gain): +5.6 dB
Relative Delay (in box crossover alignment only): 0 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	45	24	Butterworth
Low Pass Filter	300	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	139	0.300	4.80	-6.0
EQ 2	200	0.330	4.36	-8.0

Limiters:

RMS Limiter: 140 Volts
Thermal Limiter: 80 Volts, 2.0 Seconds Attack, 1.0X Release (multiplier of Attack)
XMax Limiter: 130 Volts at 45 Hz

High Frequency Section

Crossover:

Polarity: Normal
Relative Gain (assumes amplifiers with equal gain): 0 dB
Relative Delay (in box crossover alignment only): 1.55 mS

	Frequency (Hertz)	Slope (dB/Octave	Type
High Pass Filter	350	24	Butterworth
Low Pass Filter	20000	24	Butterworth

Equalization:

	Frequency (Hertz)	Bandwidth (Oct.)	Filter Q	Gain (dB)
EQ 1	2800	0.300	4.80	-3.0
EQ 2	595	0.400	3.60	-3.0
EQ 3	1040	0.400	3.60	-9.0
EQ 4	8500	0.308	4.68	+1.0
EQ 5	1820	0.356	4.04	-4.0
EQ 6	5150	0.445	3.23	-5.4

Limiters:

RMS Limiter: 56 Volts
Thermal Limiter: 30 Volts, 0.5 Seconds Attack, 1.0X Release (multiplier of Attack)
XMax Limiter: 50 Volts at 347 Hz