





















Professional Fidelity

SPL has been developing professional audio technology for over 35 years. Sound studios all over the world rely on the outstanding sound quality.

Mastering studios demand the highest standards in terms of audio performance, because they put the finishing touches to music productions – with the proprietary SPL 120V technology.

In our Professional Fidelity series, we refer to this unsurpassed technology as VOLTAiR technology.

Experience music on the same level as the mastering sound engineer.

Infinite dynamic range.

Sense for spatiality.

Detail-rich, vivid, honest and plain simply beautiful.

This is SPL VOLTAiR technology.



Phonitor xe

J120V

Headphone Amplifier





The Phonitor xe is the nonplusultra standalone headphone amplifier without any compromises.

Phonitor Matrix, remote volume control, retro-look VU meter, premium DA converters and the all-superior VOLTAiR technology make the Phonitor xe one of the best headphone amplifiers of our time.

The Phonitor xe is the first Phonitor headphone amplifier which can be ordered with the DAC768. This optional Uber-DAC qualifies the Phonitor xe to convert with outstanding sonic performance. An audio resolution of 32 bits and PCM sample rates up to 768 kHz as well as DSD – up to DSD4 – are the impressive numbers. Thanks to DLP120, the digital signal is transferred to the analog world in the highest quality.





- VOLTAiR technology
- Phonitor Matrix
- Two analog stereo inputs (1 x RCA and 1 x balanced XLR)
- Balanced 4-pin XLR and standard unbalanced 6.35 mm jack headphone output [on front and rear (switchable)]
- Analog volume control with motorized ALPS "Big Blue" potentiometer
- Extremely fine balance control (Laterality)
- Output power (standard headphone output, 6.35 mm TRS jack):
 250 Ω: 2 x 5 W; 32 Ω: 2 x 1 W [at 1 kHz, 1 % THD]
- Output power (headphone output, 4-pin XLR): 250 Ω: 2 x 3.5 W; 32 Ω: 2 x 0.7 W [at 1 kHz, 1 % THD]

- Dynamic range (headphone output, TRS): 135.5 dB
- Frequency response (-3 dB): 10 Hz to 300 kHz
- Optional: DAC768 with DLP120
 PCM with 32 bit and up to 768 kHz
 DSD up to DSD4 (Quad Rate DSD, DSD256)
 four digital inputs [USB, AES/EBU, S/PDIF (coaxial, optical)]
 Windows®, Mac® and iOS compatible
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

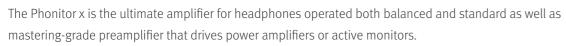


Phonitor x



Headphone Amplifier and Preamplifier





The Phonitor Matrix delivers the most realistic playback on headphones. As almost all music was mixed for speaker playback the Phonitor Matrix lets you experience music on headphones as being played back through speakers. Thanks to VOLTAiR technology in the highest sound quality.

The Phonitor x can optionally be equipped with the DAC768xs. This optional Uber-DAC qualifies the Phonitor x to convert with outstanding sonic performance. An audio resolution of up to 32 bits and PCM sample rates up to 768 kHz as well as DSD – up to DSD4 – are the impressive numbers.







VOLTEGR 120V DC Audio Rail

- VOLTAiR technology
- Phonitor Matrix
- Two analog stereo inputs (1 x RCA and 1 x balanced XLR)
- Balanced 4-pin XLR and standard 6.35 mm jack headphone output
- Two analog stereo outputs (1 x RCA and 1 x balanced XLR)
- Analog volume control with motorized ALPS "Big Blue" potentiometer
- Extremely fine balance control (Laterality)
- Output power (standard headphone output, 6.35 mm TRS jack): 250Ω : $2 \times 5 W$; 32Ω : $2 \times 1 W$ [at 1 kHz, 1% THD]
- Output power (headphone output, 4-pin XLR): 250 Ω: 2 x 3,5 W; 32 Ω: 2 x 0,7 W [at 1 kHz, 1 % THD]

• Dynamic range (headphone output, TRS): 135.5 dB

RIAA Phono Preamplifier

- Frequency response (-3 dB): 10 Hz to 300 kHz
- AMP CTL 12 V trigger output
- Optional: DAC768xs
 PCM with 32 bit and up to 768 kHz,
 DSD up to DSD4 (Quad Rate DSD, DSD256)
 Three digital inputs [USB, S/PDIF (coaxial, optical)]
 Windows®, Mac® and iOS compatible
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

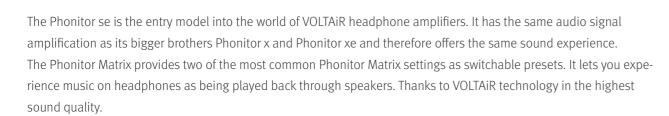


Phonitor se

Headphone Amplifier







The Phonitor se can optionally be equipped with the DAC768xs. This optional Uber-DAC qualifies the Phonitor se to convert with outstanding sonic performance. An audio resolution of 32 bits and PCM sample rates up to 768 kHz as well as DSD – up to DSD4 – are the impressive numbers.







- VOLTAiR technology
- Phonitor Matrix
- Analog stereo inputs (RCA)
- 6.35 mm jack headphone output
- Analog volume control with ALPS "Big Blue" potentiometer
- Output power (standard headphone output, 6.35 mm TRS jack): 250Ω : $2 \times 5 W$; 32Ω : $2 \times 1 W [at 1 kHz, 1\% THD]$
- Dynamic range: 135.5 dB
- Frequency response (-3 dB): 10 Hz to 300 kHz

- Optional: DAC768xs
 PCM with 32 bit and up to 768 kHz
 DSD up to DSD4 (Quad Rate DSD, DSD256)
 Three digital inputs [USB, S/PDIF (coaxial, optical)]
 Windows®, Mac® and iOS compatible
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Preamplifiers

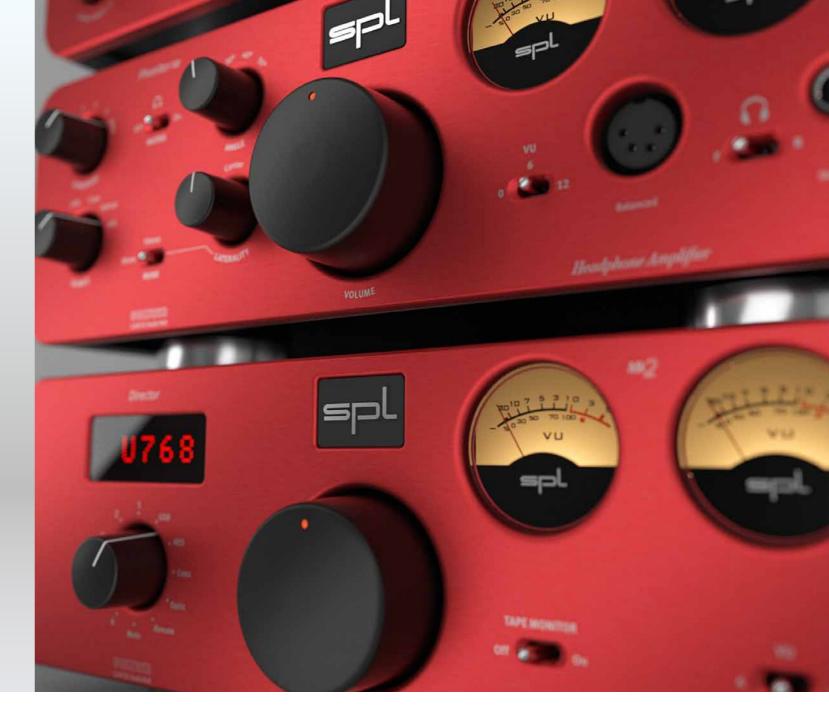


Director Mk2

DA Converter and Preamplifier







The preamplifier is the center of the audio system. With remote source selection and volume control, retro-look VU meter, premium DA converter (32 bit / 768 kHz & DSD4) and the all-superior VOLTAiR technology, the Director Mk2 delivers musical blockbusters. Fans of analog tape machines or external sound processing can loop their treasures into a tape monitor path. In addition to the four digital inputs, there are six stereo analog inputs, two of which are balanced with XLR jacks. In the latest revision of the Director Mk2, the Direct Out can also be configured as a second output in parallel with the Preamp Out.

Thanks to the DLP120, the digital signal is transferred to the analog world in the highest quality. The Director MK2 is the perfect preamplifier when superior sound quality is desired in combination with digital and analog sources.





- VOLTAiR technology
- Four digital stereo inputs [USB, AES/EBU, S/PDIF (coaxial, optical)]
- Six analog stereo inputs (4 x RCA and 2 x balanced XLR)
- Direct Out or second output (parallel to Speaker Output)
- "Tape Monitor" path (switchable)
- DAC768 and DLP120
- PCM with 32 bit and up to 768 kHz
- DSD up to DSD4 (Quad Rate DSD, DSD256)
- Analog volume control with motorized ALPS "Big Blue" potentiometer

- Source selection and volume remote controllable (IR)
- AMP CTL 12 V trigger output
- Frequency response (analog): 4 Hz to 300 kHz
- Distortion factor: 0.0008 % (analog), 0.0004 % (digital)
- Dynamic range: 137.6 dB (analog), 120.8 dB (digital)
- Windows®, Mac® and iOS compatible
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Elector

Analog Preamplifier







The Elector is based on the Director Mk2 and is designed as a completely analog preamplifier.

It features a total of six analog inputs. Three of which are balanced with XLR connectors. The Elector is equipped with the big remote controllable aluminum volume control with marker LED and two mechanical VU meters.

External audio processors or analog tape machines can be looped in the Tape Monitor. In the latest revision of the Elector, the Direct Out can also be configured as a second output in parallel with the Preamp Out.

The Elector is the perfect preamp when superior sound quality is desired in combination with analog sources.

- VOLTAiR technology
- Six analog stereo inputs (3 x balanced XLR and 3 x RCA)
- Balanced and standard outputs
- Direct Out or second output (parallel to Speaker Output)
- Analog volume control with motorized ALPS "Big Blue" potentiometer
- Remote volume control (IR)
- AMP CTL 12 V trigger output

- Frequency response: 10 Hz to 200 kHz
- Distortion factor: 0.00992 %
- Dynamic range: 135 dB
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Phonos



RIAA Phono Preamplifier





Phonos is a phono preamplifier designed for record players using either moving magnet (MM) or moving coil (MC) cartridges. The equalization curve is according to RIAA and suitable for all vinyl records since 1954. The RIAA equalizer is as designed by Douglas Self.

With up to 71.5 dB of gain for MC cartridges and 50 dB of gain for MM cartridges Phonos belongs to the most powerful phono preamplifiers.

- VOLTAiR technology
- RIAA equalization (after Douglas Self)
- Suitable for MM (Moving Magnet) and MC (Moving Coil) cartridges
- Max. preamplification gain: 50 dB (MM); 71.5 dB (MC)
- Capacitances for MM: Off, 150 pF, 220 pF and 330 pF
- Impedances for MC: 100, 220, 470, 2k2, 4k7 and 10k ohms
- Styroflex condensers used throughout the RIAA equalizer

- Switchable Gain: Normal, -10 dB, +4 dB
- Switchable rumble filter (Subsonic)
- Gold-plated RCA inputs and outputs
- Audio ground connection for record player
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Unique technologies

VOLTAIR (120V technology)

The 120V technology is our reference technology. The 120V technology is unique in the world. It operates at a DC voltage of 120 volts. This is four times that of IC-based semiconductor op-amps. By the way, the "120V" in the name of the technology has nothing to do with the local mains voltage from the mains power socket. This is about the operating voltage inside the device with which the audio signals are processed. The mains voltage from the mains power socket is transformed to the required secondary voltage in the device's internal linear power supply with toroidal transformer. Rectifiers convert this AC voltage into DC voltage required in the audio device.

The highest possible audio quality requires the highest possible audio operating voltage.

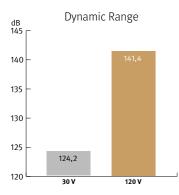
The 120V technology works with +/-60 V. To be able to handle such a high voltage, we have developed special proprietary operational amplifiers that can operate with a DC voltage of +/-60 V: the SPL 120V SUPRA operational amplifiers. This high voltage would destroy conventional components and operational amplifiers.

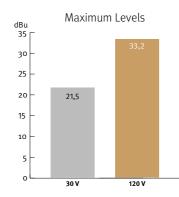
The 120V technology reaches exceptional technical specifications and sonic advantages. Technically, in terms of dynamic range, signal-to-noise ratio and headroom. Sonically, in terms of richness of detail and an absolutely relaxed listening experience.

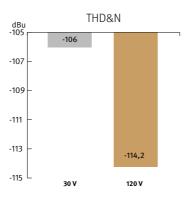
In our Professional Fidelity series, we refer to this unsurpassed technology as VOLTAiR technology.

Comparison

These diagrams clearly show the superiority of the VOLTAiR technology in comparison to other circuits with lower, common operating voltages.







DAC768 & DAC768xs

The highly acclaimed AKM AK4490 Velvet Sound™ premium DAC chip is used as the converter chip in the digital-to-analog converter, which thanks to its architecture reproduces the finest sound details.

It converts PCM audio with a resolution of 32 bits and a sampling rate of up to 768 kHz, which is equivalent to 16 times CD resolution. Direct Stream Digital is also supported up to a resolution of DSD4 or DSD256.

In contrast to the DAC768xs, the DAC768 is equipped with the SPL DLP120.

Phonitor Matrix

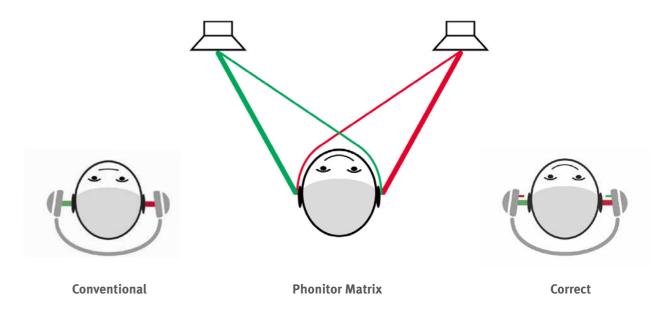
The Phonitor Matrix is the revolution in the headphone amplifier.

Thanks to the Phonitor Matrix, music can be experienced on headphones as if it was played on speakers. Music is normally produced and mixed for playback on stereo speakers. Listening on headphones is different from listening on loudspeakers. The biggest difference is the lack of crossing signals of the sound signal from the left speaker to the right ear and from the right speaker to the left ear. These crossing signals are missing in conventional headphone listening, because there are no signals crossing from one side of the headphones to the other. This results in an unnaturally wide stereo image and the various sound sources of the audio signal are not localized as the sound engineer intended them to. This effect is often referred to as "super stereo effect".

The SPL Phonitor Matrix can correct this false stereo image with an analog circuitry.

The two main parameters of the Phonitor Matrix are Crossfeed and Angle: Crossfeed determines the crossing signals of the channels, the so-called interaural level difference. Angle determines the opening angle of the stereo image, the so-called interaural time difference. During conventional listening on headphones, our brain can balance the false representation of the playback to a certain extent – but this is very exhausting.

The Phonitor Matrix therefore not only ensures a correct representation of the stereo image, but also a relaxed listening experience.



DLP120 (Dual Low-Pass)

Every signal that is routed from a DAC chip into the analog world must be filtered by a low-pass filter. In the DLP120, two of them are installed: one for PCM and one for DSD audio signals, since different roll-off frequencies are required. Unlike all other DACs in the world, our analog low-pass filters use the SPL VOLTAiR technology, which brings a plus in dynamics, headroom and sound.

Power Amplifiers & Crossover



Performer s1200



Stereo Power Amplifier





The Performer s1200 is the big stereo power amplifier of the Professional Fidelity series. It leads even the most demanding speakers to soundscapes beyond your expectations. With a power amplification of 2 x 520 W (4 Ω) [2 x 550 W (2 Ω); 2 x 300 W (8 Ω)], this completely analog amplifier easily controls any loudspeaker. Thanks to the VOLTAIR technology the performance of the s1200 is detail-rich, vivid, honest and plain simply beautiful.

In addition to the choice of the basic color black, red or silver, there are three more options for each to customize the Performer s1200 to individual design preferences with the black, red and silver decorative panels included in the scope of delivery.





- VOLTAiR technology
- Completely analog bi-polar transistor power amplifier
- 2 x 520 W at 4 ohms; 2 x 550 W at 2 ohms;
 2 x 300 W at 8 ohms
- 70,000 μF capacitance
- Toroidal transformer with 1440 VA
- Selectable input: XLR (balanced) or RCA
- Input trim for attenuation up to -5.5 dB in 0.5 dB steps
- Gold-plated speaker binding posts (banana plugs or stranded wire up to 4 mm diameter)
- Balanced Neutrik XLR connectors
- AMP CTL 12 V trigger input
- Overheat protection with Temperature LED
- DC (direct current) voltage protection with Protect LED
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany



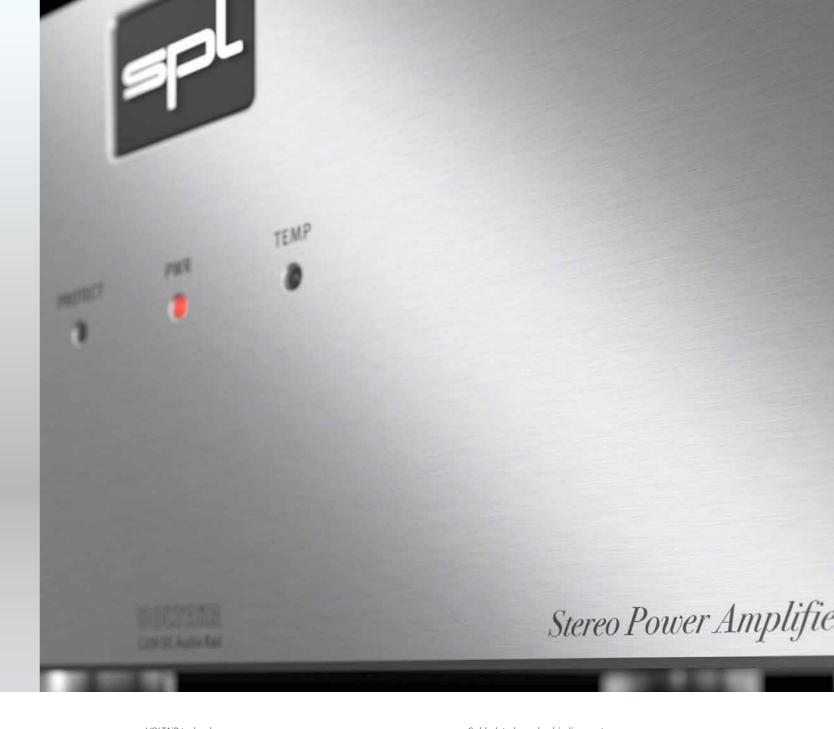
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Performer s800

Stereo Power Amplifier







The Performer s800 amplifier is an ultra-compact bi-polar transistor power amplifier. This small completely analog stereo power amplifier shows everyone that size does not necessarily have anything to do with greatness. With a power amplification of 2 x 285 W (4 Ω) [2 x 185 W (8 Ω)] or 1 x 450 W (8 Ω , Bridge Mode), this amplifier easily controls any loudspeaker. Thanks to VOLTAiR technology, it is fast, precise and highly efficient with outstanding sound.

- VOLTAiR technology
- Completely analog bi-polar transistor power amplifier
- 2 x 285 W at 4 ohms; 2 x 185 W at 8 ohms (stereo)
- 450 W at 8 ohms (bridge mode, mono)
- Toroidal transformer with 855 VA
- 40,800 μF capacitance
- Direct slave through of the input (e.g. for bi-wiring)
- Input trim for attenuation up to -5.5 dB in 0.5 dB steps

- Gold-plated speaker binding posts (banana plugs or stranded wire up to 4 mm diameter)
- AMP CTL 12 V trigger input
- Overheat protection with Temperature LED
- DC (direct current) voltage protection with Protect LED
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Performer m1000

120V VOLTAIR

Mono Power Amplifier





The Performer m1000 powerhouse mono-block provides a power amplification of 750 W (4 Ω) [1000 W (2 Ω); 420 W (8 Ω)]. Thus, this completely analog amplifier easily controls any loudspeaker. Thanks to the VOLTAiR technology the performance of the m1000 is detail-rich, vivid, honest and plain simply beautiful.

In addition to the choice of the basic color black, red or silver, there are three more options for each to customize the Performer m1000 to individual design preferences with the black, red and silver decorative panels included in the scope of delivery.





- VOLTAiR technology
- Completely analog bi-polar transistor power amplifier
- 750 W at 4 ohms; 1000 W at 2 ohms; 420 W at 8 ohms
- Toroidal transformer with 1375 VA
- 100,000 μF capacitance
- Direct slave through of the input
- Input trim for attenuation up to -5.5 dB in 0.5 dB steps
- Gold-plated speaker binding posts (banana plugs or stranded wire up to 4 mm in diameter)
- Balanced Neutrik XLR connectors
- AMP CTL 12 V trigger input
- Overheat protection with Temperature LED
- DC (direct current) voltage protection with Protect LED
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany



Professional Fidelity

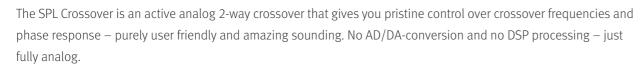
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Crossover

120V

Active Analog 2-Way Crossover





Crossover frequencies and phase control are fully variable to perfectly match the phase response between subwoofer and top/main speakers.

Finally an analog crossover again!







- VOLTAiR technology
- Selectable input: XLR (balanced) or RCA
- Low range continuously adjustable between -180° and +180° (optimal phase position adjustable)
- Low level adjustable between -10 dB and +10 dB
- Low Cut filter to cut all frequencies below 20 Hz
- Mono/stereo switching of the low range
- Mid-Hi filter can be deactivated (full range)

- Mid-Hi pass filter with 12 dB/octave or 24 dB/octave
- Frequency range: 4 Hz 300 kHz
- AMP CTL 12 V trigger input
- AMP CTL 12 V trigger output for up to 4 power amplifiers
- Thanks to Through-hole technology, the best sounding components can be used
- Manufactured in Niederkrüchten on the Lower Rhine, Germany

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Comparison Chart: Headphone Preamplifier

	Model	Phonitor xe	Phonitor x	Phonitor se
Phonitor Matrix	Crossfeed values	6	6	2
	Speaker angles	4	4	1
Remote control	Volume	•	•	0
Laterality control	Super fine balance	•	•	0
Stereo/Mono	Playback mode	•	•	0
VU meters	ø 36 mm illumin. VUs	•	•	Ο
	0 dBVU calibrated (+ 4 dBu)	0 / 6 / 12 dB	0 / 10 dB	0
Headphone output	4-pin XLR (balanced)	•	•	0
	1/4" Jack	•	•	•
	Front & rear outputs	•	0	0
	Additional output boost	+22 dB	+12 / +22 dB	+12 dB
Line output	XLR (balanced)	0	•	0
	RCA (unbalanced)	0	•	0
	Speaker output	0	•	0
	XLR (balanced)	•	•	0
Line input	RCA (unbalanced)	•	•	•
	RCA -10 dBV to 0 dBu boost	•	0	0
DA Converter (optional)	Model	DAC768	DAC768xs	DAC768xs
	DLP120	•	0	0
	Bit/max SR kHz	32 / 768	32 / 768	32 / 768
	DSD	256fs	256fs	256fs
	USB	•	•	•
	AES	•	0	0
	Coaxial	•	•	•
	Optical	•	•	•
Housing	Dimensions	278 x 100 x 300 mm 11" x 4" x 11,81"	278 x 100 x 300 mm 11" x 4" x 11,81"	278 x 57 x 300 mm 11" x 4" x 11,81"
	W x H x D (feet incl.)	4.9 kg / 10.8 lbs	4.4 kg / 9.7 lbs	2,8 kg / 6.17 lbs

Comparison Chart: Power Amplifier

	Model	Director Mk2	Elector	Phonitorx
Line input	XLR (balanced)	(2 x Stereo)	(3 x Stereo)	•
	RCA (unbalanced)	(4 x Stereo)	(3 x Stereo)	0
Line output	XLR (balanced)	•	•	•
	RCA (unbalanced)	•	•	•
Tape Monitor	Send / Return	•	•	0
Dot matrix display	Source and sample rate	•	0	0
VU meter	ø 36mm with illuminated VUs	•	•	•
	0 dB VU-setting (+4 dBu)	0 / 6 / 12 dB	0 / 6 / 12 dB	0 / 10 dB
	Model	DAC768	0	DAC768xs (optional)
	DLP120 (Dual Low-Pass)	•	0	0
	Bit/Max SR kHz	32 / 768	0	32 / 768
	DSD (max)	256 (11.2 MHz)	0	256 (11.2 MHz)
DA Converter	USB (USB-B)	•	0	•
	AES (S/P-DIF professional; XLR)	•	0	0
	Coaxial (S/P-DIF, RCA)	•	0	•
	Optical (S/P-DIF, Toslink)	•	0	•
	Word clock	0	0	0
Measurements (analog/digital)	Dynamic range	135 dB	135 dB	136.3 dB
	Frequency range (-3 dB)	4 Hz – 300 kHz	4 Hz – 300 kHz	4 Hz – 300 kHz
	Crosstalk	-108 dBu	-108 dBu	-106 dBu
	THD + N	0.000992 %	0.000992 %	0.00085 %
Remote control	Source selection	•	0	0
	Volume	•	•	•
Housing	W x H x D (feet incl.)	278 x 100 x 300 mm 11" x 4" x 11.81"	278 x 100 x 300 mm 11" x 4" x 11.81"	278 x 100 x 300 mm 11" x 4" x 11.81"
	Weight	4.55 kg / 10 lbs	4.25 kg / 9.37 lbs	4.4 kg / 9.7 lbs

	Model	Performer s1200	Performer s800	Performer m1000
Channels		2	2	1
Bridge Mode		0	•	0
Line inputs	XLR (balanced)	•	•	•
	RCA (unbalanced)	•	0	0
Line thru	XLR (balanced)	0	•	•
Measure- ments	Input sensitivity	10.5 dBu	6 dBu	12.5 dBu
	Output impedance (20 Hz - 20 kHz)	< 0.04 Ω	< 0.031 Ω	< 0.031 Ω
	Amplification	26 dB	26 dB	26 dB
	Damping factor (1 kHz, 8 Ω)	> 290	>300	> 280
	Frequency range (-3 dB)	10 Hz - 80 kHz	10 Hz - 80 kHz	10 Hz - 80 kHz
	THD (1 kHz, 8 Ω)	< 0.04 %	< 0.03 %	< 0.03 %
	Noise	-123 dB	-123 dB	- 123 dB
Output power	2 Ω (RMS)	2 x 550 W	0	1000 W
	4 Ω (RMS)	2 x 520 W	2 x 285 W	750 W
	8 Ω (RMS)	2 x 300 W	2 x 185 W	420 W
	Output voltage (RMS)	54.6 V	35 V	64.6 V
	Output voltage (Peak-to-Peak)	160 V	74 V	180 V
	8 Ω (Bridge Mode, RMS)	0	450 W	0
Power supply	Linear power with toroidal transformer	•	•	•
	Sieving capacity	70,000 μF	40,800 μF	100,000 μF
	Maximaler power consumption	1440 VA	875 VA	1375 VA
	Power consumtion on idle	50 W	40 W	50 W
	Stand-by power consumption	< 0.3 W	< 0.3 W	< 0.3 W
AMP CTL	12 V Trigger	•	•	•
Housing	W x H x D (feet incl.)	278 x 205 x 375 mm 11" x 8" x 14.8"	278 x 100 x 342 mm 11" x 4" x 13.5"	278 x 205 x 375 mm 11" x 8" x 14.8"
	Weight	25.1 kg / 55.3 lbs	14 kg / 30.9 lbs	24.8 kg / 54.7 lbs

Director Mk2

DA Converter and Preamplifier















Phonos

RIAA Phono Preamplifier







Phonitor xe

Headphone Amplifier Optional: DAC768 (USB, AES/EBU, S/PDIF coaxial & optical)







Phonitor x

Headphone Amplifier and Preamplifier Optional: DAC768xs (USB, S/PDIF coaxial & optical)







Phonitor se

Headphone Amplifier Optional: DAC768xs (USB, S/PDIF coaxial & optical)







NEW Performer s1200

Stereo Power Amplifier







Performer s800

Stereo Power Amplifier







Performer m1000

Mono Power Amplifier







Crossover

Active Analog 2-Way Crossover







SPL electronics GmbH Sohlweg 80 41372 Niederkruechten Germany

www.spl.audio info@spl.audio Tel. +49 2163 98340 Fax +49 2163 983420

