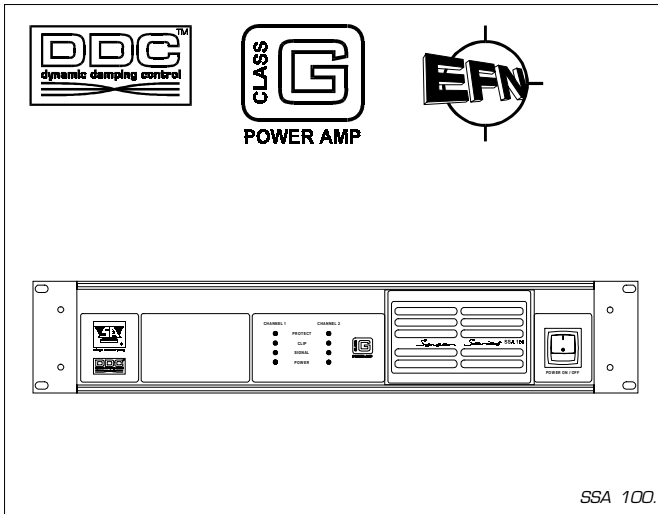




stage accompany

Technical specifications SSA 100



Screen Series SSA 100

In this documentation you will find information about:

- Excellent sonic performance
- "High speed, high current" Class G design
- Dynamic Damping Control™ DDC
- Extended Function Network™ EFN
- Easy connection
- Maximum reliability

Excellent sonic performance class G design

The SSA amplifier range is specifically designed to meet the very high demands of cinema sound reproduction. SA developed these truly "digital-cinema" dedicated amplifiers, with some very unique features, dramatically enhancing the cinema experience.

The SSA amplifiers feature SA's well-known "high speed, high current" class G design. This improved efficiency design, together with the huge capacitor bank energy of 120 joules, makes the SSA 100 deliver a 700W. of fast and sustained power per channel (peak @ 2 ohm).

Dynamic Damping Control™

Very important feature is Stage Accompany's "Dynamic Damping Control" (DDC™) system with which an almost unrealistic infinite damping factor is being realized (10.000 @ 1 kHz.). By using 2 return wires from the speaker, the control-loop of the amplifier is extended up to the speaker chassis*, completely eliminating the influence of speaker cable and connector resistance. This influence is not to be underestimated with speaker cable lengths in cinema easily exceeding 50 m./164ft.! The result is an extremely tight and accurate bass and mid response, without the need for using high impedance speakers. Furthermore, with DDC™, distortion is reduced substantially.

Extended Function Network™

Through the "tamper-free" internally accessible EFN™ circuit slots, extra "signal processing" functions can be added to the SSA 100 amplifier.

There is a choice of 2 type of modules; EFN-DP modules for dedicated processing of SA systems, or EFN-XP modules for filtering (HP, LP) for other traditional systems (user spec. as option).

The EFN-DP modules consist of three functions, all operating at the same time; 1) clip/excursion protection (inaudible protection against speaker damage) , 2) dedicated filtering (best system performance) and 3) power optimizing (maximum system output).

For each SA cinema sound system a processing module is available, so the amplifier can be fully dedicated to the system it is powering. With the EFN-DP modules, all SA cinema systems deliver absolute maximum output with optimum sound quality without any chance of mechanical damage. Because of the high quality of this circuit, it doesn't audibly affect the movie's dynamic range.

Easy connection

In order to minimize installation time, as well as to minimize cabling in the rack, the SSA 100 amplifier features a 15-pin D-connector. With this connection, all signal wiring to/from the booth monitor is done by simply connecting one D-connector cable (standard type) between amp and monitor. This Data-port is completely compatible with existing D-pin connected monitors! (for "traditional" connection, the SSA 100 also features two XLR input connectors).

The loudspeaker outputs feature two Speakon connectors, for locked, wear-free connection.

Maximum reliability

For maximum operation reliability, the SSA 100 features: "Soft Start"; protection against high temperature, DC on output, short circuit, HF; full stability at 2 ohm loads; packed in SA's famous ARMoR chassis™ (3 mm. thick "mil-spec" aluminum), finished with SA blue powder-coating. To prevent unwanted change of gain-settings, the gainpotentiometers are located on the rear of the unit. Other convenient features include: variable cooling fan speed (less dust flow), ground lift switch and LED indication for "power", "signal", "clip" and "protect".

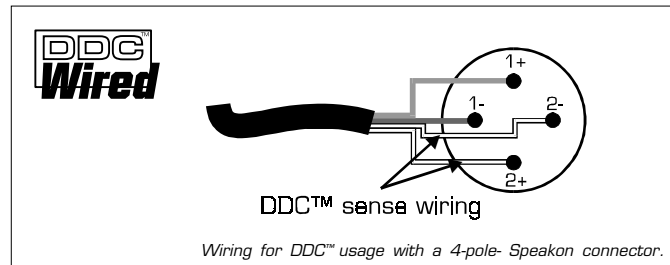
(* in combination with a DDC™ pre-wired loudspeaker system, by using normal wiring the SSA amplifiers will also work on any non DDC™-pre-wired system)

Wiring for DDC™

For absolute top quality sound reproduction, the SSA 100 is equipped with Dynamic Damping Control™.

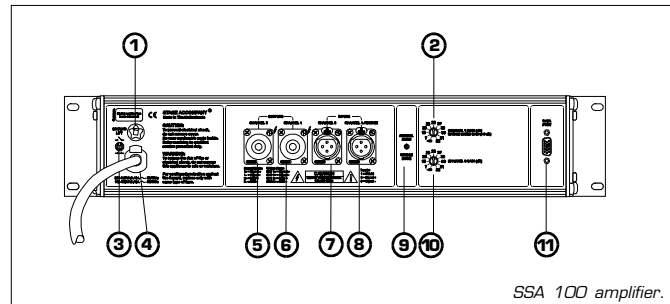
The DDC™ system is based on 2 loudspeaker wires that return from the speaker to the (SA) amplifier.

The picture on the right shows the wiring of 4-pole Speakon connector in combination with the DDC™ system.



SSA 200 backside

- | | |
|---------------------------------|---------------------------------|
| ① Fuse | ⑥ Output (channel 1), Speakon-4 |
| ② Gain (channel 1) | ⑦ Input (channel 2), XLR-3 |
| ③ Ground lift switch | ⑧ Input (channel 1), XLR-3 |
| ④ AC mains cable | ⑨ Bridge mode switch |
| ⑤ Output (channel 2), Speakon-4 | ⑩ Gain (channel 2) |
| | ⑪ Data port, HD15F |



Technical specifications

Input sensitivity	: 1.0 V _{rms} (+2.5 dBu) for full RMS power into 4 Ω
Max input level	: + 20 dBu
Input impedance	: 20 kΩ
Common mode rejection ratio	: >55 dB @ 1 kHz
Frequency range	: @ 50 W into 8 Ω 15 Hz..20 kHz +0..-0.3 dB <10 Hz..70 kHz +0..-3 dB
Gain	: 32 dB (40x)
Channel separation	: >75 dB @ 1 kHz, 50 W into 8 Ω >55 dB @ 20 kHz, 50 W into 8 Ω
Total harmonic distortion	: <0.3 % @ 20 Hz..20 kHz > 2 Ω load at all powers 1 dB below clipping <0.01 % @ 1 kHz, 50 W into 8 Ω <0.1 % @ 20 kHz, 50 W into 8 Ω
Intermodulation distortion (SMPTE)	: @ 50 W into 8 Ω <0.07 % @ 200 Hz..10 kHz <0.2% @ 10 kHz..20kHz
Signal to noise ratio	: >112 dB A-weighted
Slew rate	: >40 V/μs
Damping factor	: 10.000 @ 1 kHz, 10 V across 8 Ω
Output power (RMS/Peak)	: @ 1 kHz, 1% THD 2 x 290 W / 2 x 340 W @ 8 Ω 2 x 425 W / 2 x 535 W @ 4 Ω 2 x 525 W / 2 x 700 W @ 2 Ω
Output power bridge mode (RMS/Peak) @ 1 kHz, 1% THD	1 x 580 W / 1 x 680 W @ 16 Ω 1 x 850 W / 1 x 1070 W @ 8 Ω 1 x 1050 W / 1 x 1400 W @ 4 Ω
Main supply voltage	: stated at rear of amplifier
Power consumption	: 50 VA (standby), 700 VA 1/8 of maximum output power pink noise in 2 Ω
Weight	: 17.7 kg (39 lb)
Housing	: 19 in. rack mount, 2 HU high, 410 mm (16.1 in.) deep behind the mounting surface (without connectors)
Physical dimensions (h x w x d)	: 88 x 482 x 415 mm (3.5 x 19.0 x 16.3 in.) (without connectors)
Warranty:	: 3 years



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