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Nakamichi

SR-4A

Remote Control STASIS Receiver

NEW PRODUCT INFORMATION

The Audiophile Receiver

The Nakamichi SR-4A redefines the word "receiver." It offers the same *convenience* and *economy* but it's designed like *separate audiophile components*—each individually optimized, each individually powered, each isolated for minimum interference. And what a receiver: STASIS power amplification for uniform impedance, inherent stability and tremendous peak-current capability, a moving-coil/moving-magnet phono preamp with precise equalization, an *effective* subsonic filter and more! Like continuously variable loudness and tone controls, independent recording and input selectors with two-way dubbing and *two* video inputs, a 10-preset PLL Quartz-Lock FM/AM tuner with manual and auto-seek tuning, and wireless remote control!

MULTI-STAGE POWER SUPPLY

The SR-4A's performance is due in part to its unique power supply. Unlike ordinary receivers, the SR-4A's transformer has separate windings, rectifiers and regulators for each major section: power amplifier, preamplifier, tuner and display. Within the audio circuitry, separate regulators are used for the phono preamp and high-level stages, and the video amplifiers are regulated independently of the audio stages to prevent video noise from intruding. Separate grounds are used for audio, tuner, display and power supply so ripple and RF noise will not enter the audio circuitry. The tuner is even buffered from the other inputs to prevent interference. Critical subregulators are discretely configured with a unique topology that cancels noise on the ground line. This unusually exotic power supply permits each section to operate independently of the others—the major advantage of "separate" components.

STASIS AMPLIFICATION

Audiophiles who hear the SR-4A are amazed at its effortlessly transparent sound. Music has more detail, more impact, more realism—especially when reproduced on "difficult" top- quality speakers. The reason is our "STASIS" power amplifier—the same concept used in the PA-7 and PA-5 Power Amplifiers.

STASIS is a radically different and superior design in which *two* amplifiers drive the speaker: a high-quality low-power amplifier and a "Current-Mirror Bootstrap" to supply muscle. The low-power amplifier has lower output impedance than the bootstrap and so establishes the output voltage. Thus, *it* determines the sound quality but supplies only enough power to correct distortion in the current amplifier. Since a low- power amplifier can be designed for virtually perfect performance, "global" feedback isn't needed as in ordinary power amps. Removing the overall feedback ensures uniform output impedance and inherent stability, and, since the amplifier *is* stable, there's no need to isolate it from the speaker with a coil as is usually done. This permits the amplifier to control the speaker more precisely and realize its full potential. The current bootstrap provides tremendous peak-current reserves—up to 25 amperes into low-impedance loads!

AN AUDIOPHILE PREAMP

Special care was lavished on the SR-4A phono preamp. The input circuit is a direct-coupled discrete design using ultra-high-gm FETs in a balanced differential configuration. These drive a differential gain stage with RIAA equalization obtained via a direct-coupled precision feedback network. The preamp accommodates MM and MC cartridges with a choice of gain (24/32 dB) in the MC position. A defeatable subsonic filter is part of the phono preamp. Thanks to a simulated-inductor ("gyrator") design, it has maximum rejection in the "warp" region, minimum loss in bass response and is free of noise pickup.

Only components of the highest quality are used. Instead of the noisy distortion-prone electronic attenuator now in vogue as a volume control, we use a motor-driven precision potentiometer for local and remote level control. The loudness control is continuously variable to suit any listener's preference and copper-styrene capacitors and metal-film resistors in the signal path ensure minimum noise and distortion.

AN EXCEPTIONAL TUNER

The SR-4A's Quartz-PLL-Synthesized FM tuner is far from ordinary. Of course, the quartz-locked design ensures accurate tuning and eliminates drift. But typical tuners of this type have high residual noise due to "reference-frequency jitter." The SR-4A tuner uses a reference frequency twice that of ordinary tuners to improve S/N. A dual-gate MOS FET front end with high-Q twin vari-cap diodes provides selectivity equivalent to a 4-gang capacitor while a special auto-seek circuit that detects *both* signal *and* noise level prevents false stops between or near strong stations.

SR-4A Tentative Specifications

Power Amplifier Section	
Continuous Average Output Power (IHF-A-202)	**80 watts per channel into 8 ohms, both channels driven, 20—20,000 Hz at no greater than 0.1% THD**
Dynamic Output Power (both channels driven)	80 watts per channel into 8 ohms 120 watts per channel into 4 ohms
Dynamic Headroom (IHF-A-202)	1.3 dB
Frequency Response (IHF-A-202)	5 Hz—100 kHz, ± 0.5 dB
S/N Ratio (A-wtd, Input Shorted)	Better than 105 dB re Rated Power
THD (Rated Power into 8 ohms)	Less than 0.1% (20 Hz—20 kHz)
IMD (Rated Power into 8 ohms)	Less than 0.1% (60 Hz : 7 kHz / 4 : 1)
Preamplifier Section	
Sensitivity/Impedance (for rated output)	
Phono MC (Gain: 32 / 24 dB)	60 / 160 μV / 100 ohms
Phono MM	2.5 mV / 47k ohms
CD/Tape/Video	200 mV / 30k ohms
Maximum Input Level (1 kHz, IHF-A-202)	
Phono MC (Gain: 32 / 24 dB)	3.5 / 8 mV
Phono MM	150 mV
Total Harmonic Distortion (20 Hz—20 kHz, to Rec Out at 1 V)	
Phono MC	Less than 0.003% (either gain)
Phono MM	Less than 0.002%
RIAA Deviation	30—20,000 Hz ± 0.5 dB
Signal-to-Noise Ratio (to speaker output per IHF-A-202)	
Phono MC with 32 dB Gain	Better than 73 dB
24 dB Gain	Better than 72 dB
Phono MM	Better than 83 dB
Tone Controls: Bass	20 Hz, ± 10 dB
Treble	20 kHz, ± 8 dB
Contour (Variable Loudness) (re maximum attenuation -40 dB at 1 kHz)	20 Hz, + 25 dB; 20 kHz, + 8 dB
Subsonic Filter (Phono Only)	10 Hz, –12 dB/octave (defeatable)
FM Tuner Section	
Frequency Range	87.5—108.0 MHz in 100-kHz steps
IHF Usable Sensitivity (Mono)	11 dBf / 1.9 μV
50-dB Quieting Sensitivity (Mono)	14.7 dBf / 2.9 μV
(Stereo)	37.5 dBf / 41.2 μV
Signal-to-Noise at 65 dBf (Mono)	Better than 79 dB
(Stereo)	Better than 74 dB
Frequency Response	20 Hz—15 kHz, ± 1 dB
Total Harmonic Distortion (Mono)	Less than 0.07%
(1 kHz) (Stereo)	Less than 0.09%
Capture Ratio	1.5 dB
Alternate Channel Selectivity	60 dB (± 400 kHz)
Stereo Separation at 1 kHz	Better than 52 dB
Spurious Response Rejection	Better than 90 dB
Image Rejection	Better than 75 dB
IF Rejection	Better than 80 dB
AM Suppression	Better than 60 dB
AM Tuner Section	
Frequency Range	520 kHz—1710 kHz in 10-kHz steps
Sensitivity	50 dB_μ/m
Signal-to-Noise Ratio	Better than 50 dB at 90 dB_μ/m
Total Harmonic Distortion	Less than 0.3% at 90 dB_μ/m
Selectivity	Better than 20 dB (± 10 kHz)
General	
Power Source	120 VAC, 50/60 Hz
Power Consumption	400 watts maximum
Convenience Outlets	2 Switched, 1 Unswitched
Dimensions	400(W) x 100(H) x370(D) mm 16-15/16(W) x 3-15/16 ¼(H) x 14-9/16(D) inches
Approximate Weight	10.1 kg; 22 lb. 4 oz.

- Specifications and appearance subject to change for further improvement without notice.
- STASIS manufactured under license from Threshold Corporation.
- STASIS is a trademark of Threshold Corporation.

NOTE: "A-Version" Models

Nakamichi high-fidelity equipment is sold in 52 countries around the world. Many of these countries have safety regulations to which Nakamichi products must comply. Models designated by an "A" were produced for the United States market and comply with the requirements of Underwriters Laboratories (UL) as well as with other applicable state and Federal safety standards.

Within the United States, Nakamichi has authorized its local distributors to offer warranties only on products which have been produced for the United States market in accordance with the foregoing standards.

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