

s i l v e r s e r i e s



p e r f o r m a n c e v a l u e s i m p l i c i t y

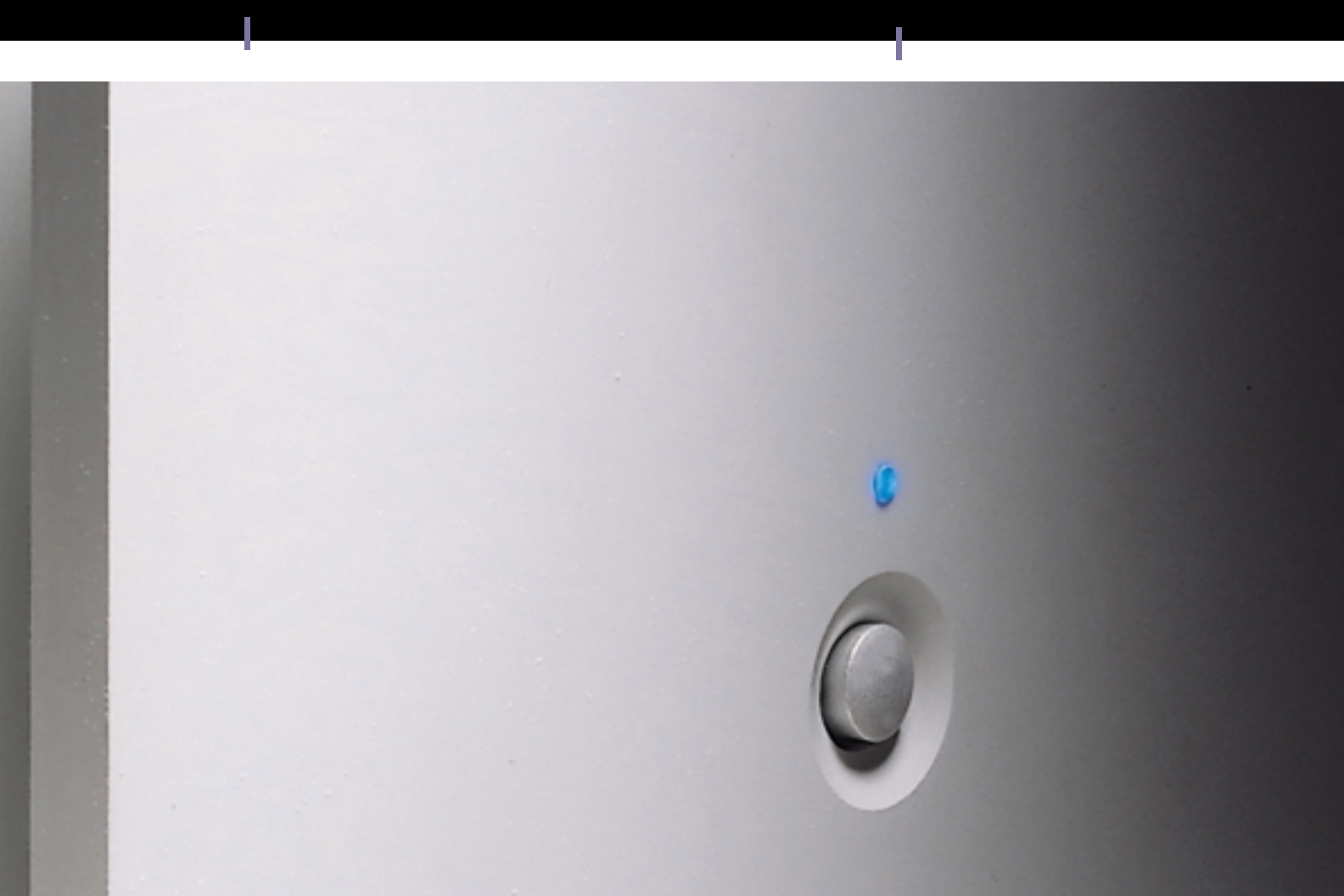
NAD is recognised as a leader when it comes to sensible yet unreservedly high performance audio. These Silver Series components are some of the most ambitious and sophisticated designs ever offered by NAD.

The emergence of digital signal processing and multi-channel stereo challenged our design team to apply NAD's traditional values of performance, value and simplicity to a new generation of technology. The Silver Series of components combine our expertise in analogue audio technology with cutting edge digital engineering to produce world class performance. Designed in Scandinavia, Engineered in London and Toronto, and manufactured in the United States and Denmark with help from our Hong Kong Production Engineers, these sophisticated components represent an international effort by a dedicated group of audio enthusiasts.

Each component in the Silver Series represents the benchmark against which all other NAD models are measured. Our THX Ultra certified Surround Sound processor and amp are capable of recreating an eerily real sound field when fed with today's best film soundtracks. Music gains a palpable presence in your listening room. Every nuance of the sound is reproduced with precision and passion. NAD's

innovative engineering and sensible approach to product design, are combined with precision manufacturing to allow the Silver Series components to set altogether new standards for value.

We hope you enjoy listening to your Silver Series components as much as we have enjoyed developing them. While each component stands proud in its category, we think the Silver Series is best enjoyed as a complete system. The full story of each individual Silver Series component is chronicled in the following pages.



p e r f o r m a n c e

NAD's tradition of creating products with "giant killer" performance has been well established over the last quarter century. And this reputation has been earned by applying creative engineering solutions and meticulous fine-tuning to every circuit in every NAD product. Designed by music lovers, for music lovers, NAD components consistently deliver exceptional performance that brings you closer to the music. It is our strong belief, that when a product doesn't deliver an emotionally involving and musically accurate performance, then it has missed the primary point of its very existence!

v a l u e

We define value as getting more for less. In the case of NAD, that's more performance, and less money spent. Careful design and execution, and staying focused on what's really important allows NAD to consistently offer products that over-achieve in this regard. The ability to get performance that is very close to the "cost-no-object" crowd, at an everyday affordable price, is a key element in the NAD philosophy.

s i m p l i c i t y

What makes NAD so unique in the world? It isn't just an insistence on great sound quality, it is also our sensible approach to product design and manufacturing. By keeping our designs simple, and by avoiding the trendy gimmicks favoured by many of our competitors, we can offer products that perform better, cost less, and last longer. This refreshing approach can be summed up in one word: simplicity.

S 170DIGITAL SURROUND SOUND
PREAMP PROCESSOR

The S 170 is a carefully thought out control centre that offers superlative performance and tremendous flexibility, combined with a very friendly user interface. Extensive input switching capabilities for video sources, digital sources, and analogue sources can easily control even the most complex and sophisticated Home Theatre systems. The clear front panel display gives instant feedback about operating status and is complemented by a simple but sophisticated video on-screen-display (OSD). A unique memory system stores all parameters for each individual program source, making everyday operation simple and straightforward for every member of the family.

Based around a unique modular concept, the S 170 can be updated to new future formats simply and cost effectively. The complete digital processing section of this pre-pro is assembled as a plug in module, so that even if a new processing protocol requires a faster processor than is currently available, the S 170 can be easily upgraded with the new processor. We also include a 5.1 analogue input for multi-channel sources not available as a digital signal, such as DVD-Audio.

Processing options include the popular Dolby Surround modes, both ProLogic and Digital 5.1, as well as DTS. We are also one of the first products on the market to include the new THX Surround EX, 7.1

channel processing. Naturally, the S 170 includes full THX Ultra certification. Depending on the source material being played, the "highest" level of decoding is automatically switched on. For music listening, we have included our highly acclaimed EARS (Enhanced Ambience Recovery System) mode to recreate the natural acoustic space of your 2 channel stereo recordings, or you can listen to unprocessed stereo via either the analogue or digital inputs. There are also "custom scenarios" that allow you to save up to five preferred surround settings for instant recall. This is useful for adjusting the balance of your home theatre set up for different types of source material quickly and repeatably without resorting to set-up menus.

The digital performance of the S 170 is truly state-of-the-art, with all digital circuits running from a single master clock for perfect synchronisation of the various circuit elements. Analogue-to-Digital, and Digital-to-Analogue conversions, are performed using professional quality AKM Semiconductor 24-bit/96kHz converters. Any of the six digital inputs can be assigned to any video or audio input for maximum flexibility of system set-up. There are also two digital outputs to allow recording while keeping the signal completely in the digital domain and avoiding multiple A/D and D/A conversions.

Video circuitry is also carefully engineered to allow the convenience of video switching and control without degrading the video resolution. Ultra wide bandwidth (HDTV compatible) video signal paths utilise broadcast quality amplification, and the OSD (On Screen Display) is switched completely out of the circuit when not in use to prevent any possible degradation of picture quality. All popular video formats are supported (Component, S-Video, Composite), and with six video inputs and three video outputs almost any set up can be accommodated.

Analogue performance is also at the highest level, in keeping with the Silver Series philosophy. Input and output buffer amplifiers are FET types selected for their low noise and virtually distortion free performance. Impedance values are carefully set to avoid the potentially degrading effects of interconnect cable capacitance, and the output is muted using gold plated relays. In short, every circuit detail is examined, tested, listened to, and tested again to be sure maximum performance is realised.

The S 170 is also designed to be easily integrated with other components, to form a seamless operating system. The "bass management" system is exceptionally flexible. An RS-232 computer interface is included to allow interface with sophisticated control

systems, and it can also be utilised to update the operating software of the S 170. A second zone stereo output is included with independent source and volume control to allow the S 170 to send music to another area of the home while simultaneously playing music or movies in the primary area. Naturally, all operating functions can be controlled via the supplied wireless handset.

Born of countless thousands of hours in engineering and design effort, we believe the S 170 reaches, but does not exceed, that magic threshold where more actually becomes less. That point of diminishing returns where adding more only becomes more, it doesn't become better in any practical sense. Extraordinary sonic and visual performance, exceptional value, broad flexibility, and a simple yet comprehensive user interface combine to make the S 170 Surround Preamp Processor one of the most exciting products we have ever produced.



S 70 SYSTEM REMOTE CONTROL

Designed to complement the Silver Series components, the optional S 70 remote control sports a solid aluminium body and a slimline ergonomic design. (Included with the S 170.)

The simple, intuitive control system operates on a series of 'pages' shown on the built-in LCD display, which change to reflect the chosen function. For example, once the CD input has been selected, the display will change to offer relevant commands such as Play, Pause, Skip / Scan, etc.

The perfect addition to any Silver Series system, the S 70 will also operate other NAD equipment, either directly or via NAD Link.

S 250M U L T I - C H A N N E L
P O W E R A M P L I F I E R

The S 250 has been designed to perfectly complement the S 170 in both performance and appearance. Like the S 170, the S 250 is THX Ultra approved. Because of the very high levels of detail and transparency of sound afforded by the S 170, this meant that the NAD Engineering Group would have to do something very special in the matching power amplifier to preserve and enhance the performance of the Preamp Processor. The design brief called for a powerful yet reasonably compact amplifier that could easily drive the complex load presented by today's best loudspeakers. In keeping with NAD's "Music First" philosophy for home theatre products, the S 250 would also have to measure up to the extraordinarily high musical standards set by our own S 200 and S 300 Silver Series amplifiers. The unique and sophisticated design of the S 250, more than accomplished all of these goals.

The S 250 is based on 5 identical "monoblock" amplifier modules, each with its own heat sink and protection circuitry. These individual amplifiers share a power supply based on a massive edition of NAD's signature "Holmgren" toroidal transformer, noted for its tight voltage regulation, and immunity from DC contamination on the incoming AC mains voltage. Heavy duty voltage rectifiers and low ESR smoothing capacitors combine to give the amplifier modules a nearly ideal low impedance source of

DC voltage that contributes to the very high damping factor and excellent signal-to-noise ratio of the S 250 design. Unlike many competing designs, the S 250 employs one very large power supply rather than 5 small power supplies. The advantage to this approach under real world operating conditions is obvious: any individual channel has access to a reservoir of current sufficient to drive all five channels on a continuous basis. With musical and motion picture program material, it is highly unlikely that all channels would require full power at the same time, thus allowing individual channels to provide far more power than their already ample 125 watts continuous rating with all five channels driven simultaneously. In fact the S 250 can easily supply 200 watts of power per channel with only two channels driven continuously.

But a power amplifier at this quality level must have more than just brute strength to be successful. It must also have performance that can unravel the smallest musical detail and present it in a cohesive and convincing way to the listener. The S 250 employs sophisticated circuitry to achieve these sonic attributes. A differential Pure Class A input stage using precisely matched FETs (Field Effect Transistors) imparts a wonderfully warm sound with a grain-free upper midrange and treble response. Glass epoxy circuit boards, precision metal film resistors and

film type capacitors all contribute to the precise sound of the

S 250 with the additional benefit of very stable performance over time, thus ensuring a long and trouble free service life. The output stage of the amplifier is based on the same high current output devices used in the S 200, offering tremendous headroom and an ample safe operating area to handle high current peaks with ease.

Operating status can be monitored by individual status LED indicators visible through the top cover of the amplifier - green indicating normal operation, and red when the protection circuit is activated. Gold-plated relays are used to connect the speakers after the amplifier has stabilised during turn on, and disconnect the speakers at turn off or if the protection circuit is activated, protecting both the speaker and the amplifier from possible damage in the unlikely event of a malfunction. A switchable Soft Clipping function monitors power output and prevents the amplifier from being overdriven into severe distortion - a nice safety feature if you like to listen loud! The S 250 also incorporates a soft start-up feature that can be activated in one of three selectable ways, via the front panel switch, via a 12-volt control "trigger", or by sensing a signal at the input.

Powerful and precise, the S 250 has the ability to make music come alive with every nuance intact, and can also bring forth the full intensity of the best cinematic scores. With its superb build quality and understated good looks, this amplifier will give its proud owner many, many years of enjoyment.



S 100

STEREO PRE - AMPLIFIER



S 100 RIAA Phono Module

The optional plug-in Moving Coil / Moving Magnet module converts one of the S 100's line inputs into a high-quality phono input.



The NAD Model S 100 achieves its outstanding transparency and delicacy with power-supply quality, pure Class-A operation of all circuitry, and carefully considered choices of components and physical layout.

It provides seven line inputs that include two complete tape loops for flexible dubbing, with an optional, very high-performance MM/MC phono module to allow the serious vinyl buff to convert one of these to a superbly accurate phonograph input.

The new NAD preamp uses an efficient, low-noise toroidal power supply transformer, with 10,000 μF of very-low-ESR capacitance - more than many power amps! This creates extremely pure, stable, noise-free internal supply voltages, a rigid prerequisite to truly audiophile-class operation.

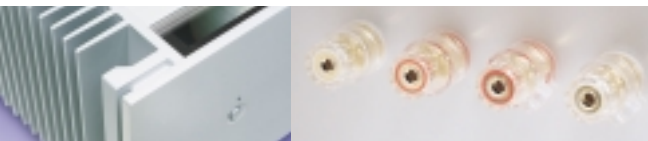
From input to output the circuits of the S 100 are engineered for very low-distortion Class-A operation, with a vanishingly low output impedance (long an NAD hallmark) that reduces the sonic impact of cable impedance to near insignificance. What's more, the S 100 supplies its main outputs in two formats: conventional, unbalanced RCA, and fully balanced XLR jacks.

Unlike many consumer-audio products, the latter are true "pro-audio" outputs able to deliver up to 20 volts to 600 ohm loads while significantly reducing susceptibility to external hum and noise.

The preamp's signal-routing is accomplished via reliable, sonically transparent gold-contact relays instead of the more common, signal-colouring electronic switching, and it uses gold-surfaced signal-connectors exclusively, both inside and on its rear panel.

And since the S 100 incorporates NAD-Link it can operate a full system with the supplied remote control. This will control the principle functions of all compatible NAD components, including the Silver Series tuner and CD player, and directly commands all S 100 controls and features.

Control is also available via the optional S 70 system remote controller.



S 200

STEREO POWER
AMPLIFIER



NAD amplifiers have long been noted for a unique blend of power, performance, and value, a carefully chosen balance the Silver Series Model S 200 pushes to new heights. The S 200 exploits recent NAD advances to combine very high power with critical-listening finesse and real-life affordability not previously available.

The fully dual-mono S 200 delivers 225 watts per channel (8 ohms; both channels driven; 20 Hz-20 kHz at <0.03% THD) and offers as much as 470 watts per channel with 4 ohm loads.

Perhaps more importantly, the S 200 is stable, defined, and musical into even unreasonable low impedance loads (though these are encountered often enough in the real world!). The Silver Series S 200 may be bridged, forming a single-channel amplifier with short-term power reserves in excess of 1.3 kilowatts (4 ohms).

There is no magic behind this elevated performance, but considerable and painstaking refinement. The S 200's massive, extremely low-noise / low-hum "Holmgren" type power transformer is a considerable advance even over conventional toroidal devices in both efficiency and in freedom from internal and radiated hum. A very high-current output stage delivers power by way of current reservoirs built up of multiple, smaller-value storage

capacitors instead of the far more common large-value pair. This NAD configuration, first introduced on the widely acclaimed Model 208THX, yields "fast" high-definition / high-power transient capabilities, and so reproduces terrific dynamic integrity.

The end result is musical detail, impact, and soundstage breadth and depth that are unmatched from such an affordable high-power amplifier - to say nothing of numerous designs two and three times the S 200's price. The Silver Series S 200 incorporates NAD's proprietary, switchable Soft Clipping, which significantly reduces the risk of loudspeaker damage from prolonged high-power or inadvertent overdrive operation, as well as reliable, sonically transparent relay protection from thermal overload, short circuits, and other unlikely but potentially disastrous conditions.

Input facilities, all gold plated, include unbalanced RCA and "pro-style" fully balanced XLR jacks, which preserve the enhanced dynamic range of the NAD Silver Series S 100 pre-amplifier's balanced outputs for the utmost in signal-transfer integrity.

S 300DUAL MONO
INTEGRATED AMPLIFIER

Integrated amplifiers have been an NAD focus from the very beginning: Indeed, NAD's first international product, the Model 3020, is remembered (and widely used!) even today as being among the most acclaimed value audio designs of any era. So designing a Silver Series integrated amplifier was viewed by NAD's engineering team as a special task.

Deceptively simple on the outside, the S 300 deploys advanced engineering to perform at a level rarely if ever before reached by an integrated amplifier at this price. First, the Model S 300 produces substantial power: 100 watts per channel (both channels driven at 8 ohms; 20 Hz-20 kHz at <0.07% THD), from circuitry that literally follows dual-mono layout from input to output. Each channel is the mirror image of the other physically and electrically, and even the power supply - that is, supplies - comprise two discrete units with two, entirely separate Holmgren-type ultra-low-hum power transformers.

This approach utterly eliminates unwanted signal interactions, and equips the S 300 with internal power of unprecedented stability and freedom from hum and noise.

Next, the S 300's amplifier circuits avoid overall ("global") negative feedback altogether, a factor today accepted as critical to achieving legitimately high-end sonic definition and refinement. Nevertheless, meticulous, inherently linear

circuit design maintains the S 300's distortion and noise performance at a solidly "modern" level - 0.07 percent THD+noise - that would be happily accepted for most conventional, feedback-based designs.

Additionally, guarding this musically pure signal are sonically transparent gold-contact relays that manage all signal routing, in place of the more usual (and far less costly) electronic switches. And to eliminate digital circuits as a possible noise source, the S 300's operational logic/control system employs yet another, fully independent power supply (with yet another, fully independent transformer). Minimal wiring, carefully chosen, top-grade circuit devices including metal-film resistors and polypropylene capacitors, and a remarkably high-precision, motorised volume-control all make the S 300's design qualify as one of the finest-sounding amplifiers, integrated or otherwise, yet devised.

In keeping with the NAD Silver Series design concept the S 300 incorporates a fully-balanced input among its five line-input positions, for full compatibility with the S 500 CD player. The Silver Series S 300 integrated amplifier is equipped with NAD-Link inter-component control, and is supplied with an NAD full-system remote handset. Control is also available via the exclusive S 70 system remote controller.



S 400 STEREO FM TUNER



It is ever more difficult to find a sonically satisfying FM tuner. And the few designs that do qualify are increasingly burdened by buttons, features, and functions - too many of them of dubious utility. NAD recognises that FM radio remains a valuable source of music and other programming, so the Silver Series S 400 FM Tuner was carefully designed to fly in the face of these trends.

The S 400 supports an innovative, genuinely high-performance FM section with a deliberately simplified interface. The S 400's technical design is highlighted by dual antenna inputs, each equipped with a fully independent, low-noise, dual-gate MOSFET RF amplifier. This very atypical arrangement avoids any possibility of interference between inputs, while providing an invaluable convenience to those using two antennas or an antenna plus a cable system to maximise listening options. Triple-stage IF filtering incorporates user-selectable (Wide/Narrow) bandwidth, a traditional feature that enables the S 400 to offer the best-of-both-worlds performance: maximum quieting from weak signals, and fully maximised audio quality from strong, closely spaced ones. (Virtually all competitive tuners and receivers compromise performance in these areas.)

Additional advanced elements include physically separate and independently regulated power supplies for analogue-audio, RF, and digital-logic circuits, and a sophisticated, highly effective implementation of the critical 19 kHz pilot-tone filter. There is also no use of the inductors normally found in tuners, and this guarantees minimum phase shifting. The S 400's user-selectable blend mode permits highly effective quieting of very weak or noisy signals while still preserving substantial stereo image.

As is quite common among digital tuners today the S 400 provides 30 preset memory locations the user may program to instantly recall favourite stations. Entirely uncommon is the fact that each of the tuner's 30 presets store not just a station by name, utilising the programmable 8 character display input, but also the selected antenna input, wide/narrow IF mode setting, and mono or stereo decoding status.

The S 400 also provides a remote control, and NAD-Link includes the necessary interface for fully integrated system operation.

S 500C O M P A C T
D I S C P L A Y E R

The Model S 500 is the latest and most ambitious in a long line of affordable-high-end CD designs from NAD - a family that has won an unequalled reputation for true value, performance and simplicity.

The Silver Series player tops this family tree with a single-disc design built around an extremely accurate new 24-bit digital-to-analogue converter from Crystal Semiconductor. Even better, together with its analogue-audio output section this superb converter is fully modular, meaning that any potential future upgrades can be performed quickly, easily, and at minimal cost by an authorised NAD dealer.

More immediately significant is the fact that unlike the vast majority of CD players - affordable and "esoteric" ones alike - the S 500 supports this outstanding DAC with custom-engineered, purpose-designed auxiliary circuits.

These include a highly unusual five-pole analogue filter section and all-discrete output amplifiers yielding exceptionally pure audio-band signals, for wonderfully transparent musical results. Just as uncommon, the Silver Series player supplies pro-standard AES/EBU digital output alongside its conventional S/PDIF coaxial digital output; both are buffered and transformer-coupled,

providing a very stable and perfectly precise 75 ohm interface that minimises jitter and reflections.

NAD's tight design focus on the Silver Series sonics dictated the S 500's meticulously engineered power supply: Multiple sections, independent voltage regulation for digital, analogue, and servo circuit-blocks, a top-grade toroidal transformer, and very extensive filtering combine for remarkable freedom from hum and noise in both analogue and digital domains.

Fully Class-A analogue stages deliver very-low-impedance outputs, which ensure uncompromised signal quality to downstream components. To the same end, the S 500 complements its conventional RCA outputs with fully-balanced XLRs.

The S 500 is an NAD CD player, so it features refreshingly simple, easy to use controls and functions, operable both from its front panel or via the supplied remote handset, and a complete absence of frivolous extras. The S 500 does, however, incorporate NAD-Link for "smart-remote" operation when used in concert with compatible NAD master components, including the Silver Series pre- and integrated amplifiers. Control is also available via the optional S 70 system remote controller.

S 170 SURROUND SOUND PROCESSOR

Decoding formats	Dolby Digital, Dolby Pro Logic,DTS, THX Surround EX
Sampling rates	32kHz, 44.1kHz, 48kHz, 96kHz
Modes	EARS Stereo (analogue bypass)

Analogue performance

Analogue input impedance		16kΩ / 100pF
Analogue frequency response	20Hz - 20kHz	+/- 0.2dB
Maximum input level		3V rms
THD+N		0.005%
Signal/noise ratio		>98dB
Dynamic range		-95dB
Analogue channel separation		>95dB
Crosstalk		>90dB
Maximum output level		6V rms
Output impedance	Main pre-out	56 Ω
	Tape out	470 Ω
	Multi room output	470 Ω
Tone control	Bass	(@20Hz) +/- 12dB
	Treble	(@20kHz) +/- 12dB
	Centre	(@ 3kHz) +/- 6dB

Digital input performance

THD+N (Bandwidth 10Hz - 20kHz)	0.005%
Digital input impedance	75 Ω

Video

Input and output impedance	75 Ω
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Remote control

Yes

Physical specifications

Dimensions (W x H x D)	450 x 97 x 285mm
Net weight	4.99kg
Shipping weight	5.89kg

Dolby, Pro Logic, Dolby Digital, HX Pro and the Double 'D' symbol are trademarks of Dolby Laboratories Licensing Corporation.

THX and THX Ultra are trademarks of Lucasfilms, Ltd.

DTS is a trademark of Digital Theatre Systems, Inc.

S 250 MULTI-CHANNEL POWER AMPLIFIER

Power Amp Section		
Continuous Average Power Output	8 Ω	5 x 125W (21.0dBW) (Min. power per channel, 20Hz - 20kHz both channels driven with no more than rated distortion)
Rated distortion (THD 20Hz-20kHz)		<0.05%
Clipping power		0.05%
IHF power dynamic headroom at 8 Ω		+1.4dB
IHF power dynamic power	8 Ω 4 Ω	172W (22.4dBW) 273W (24.4dBW)
Damping factor	ref. 8 Ω, 50Hz	>300
Input impedance	rated power into 8 Ω	50kΩ
Input sensitivity		1.1 V
Voltage gain		29.0dB
Frequency response	20Hz-20kHz 2Hz to 100kHz	+0, -0.2dB -3dB
Signal/noise ratio	ref. 1W ref. rated power	95dB 125dB

Physical specifications

Dimensions (W x H x D)	435 x 132 x 410mm
Net weight	19kg
Shipping weight	21kg

S 100 STEREO PRE-AMPLIFIER

Phono stage		
Input impedance (R and C)	MM MC	47kΩ + 100pF 22, 100, 220Ω + 100pF
Input sensitivity ref. (0.5V 1kHz)	MM MC	1mV / 3mV 0.1mV / 0.3mV
Input overload (20Hz/1KHz/20KHz)	MM (low) MC (low)	12mV / 120mV / 650mV 0.4mV / 4mV / 65mV
Signal/noise ratio (A-weighted with cartridge connected)	MM MC	81dB ref. 5mV 75dB ref. 0.5mV

Line level inputs

Impedance (R+C)	33KΩ + 120pF
Sensitivity ref. 0.5V	170mV
Maximum input signal	>10V
Signal/noise (A-weighted ref. 0.5V)	97dB
Frequency response (20Hz - 20kHz)	+0, -0.03dB
THD	0.001%

Line level outputs

Output impedance Pre-Amplifier	Unbalanced Balanced	75Ω 100 Ω
Output impedance Tape		Source Z + 2kΩ
Output impedance Phones		120 Ω
Maximum output level Pre-Amplifier	Unbalanced Balanced	>9.5V 19.5V
Maximum output level Tape		>10V

Remote control

Yes

Physical specifications

Dimensions (W x H x D)	450 x 67 x 285mm
Net weight	5.15kg
Shipping weight	7.5kg

S 200 STEREO POWER AMPLIFIER

Power Amp Section		
Continuous output power *		225W (23.5 dBW)
Rated distortion (THD 20Hz-20kHz)		0.03%
Clipping power †		240W (23.8 dBW)
IHF dynamic headroom at 8Ω		1dB
IHF dynamic power ‡	8Ω	280W (24.5 dBW)
	4Ω	470W (26.7 dBW)
	2Ω	700W (28.4 dBW)
Slew rate		>100V/ μs
Damping factor (ref. 8Ω, 50Hz)		>200
Input impedance		47kΩ / 700pF
Input sensitivity (into 8Ω)		1.4V
Voltage gain		x 28.3 (29 dB)
Frequency response (20Hz-20kHz)		+ 0.3dB
		-3dB at: 2.5Hz / 80kHz
Signal/noise ratio	ref. 1W	96dB
	ref. rated power	120dB
Bridged Mode		
Continuous output power into 8Ω*		780W (28.9 dBW)
IHF dynamic headroom at 8Ω		1dB
IHF dynamic power ‡	8Ω	940W (29.7 dBW)
	4Ω	1.3kW (31.1 dBW)

Physical specifications

Dimensions (W x H x D)	450 x 180 x 395mm
Net weight	25.57kg
Shipping weight	27.65kg

* Minimum power per channel, 20Hz-20kHz, both channels driven, with no more than rated distortion

† Maximum continuous power per channel

‡ Maximum short term power per channel

S 400 STEREO TUNER

Usable input sensitivity (60dB S/N)	FM Mono	1.0μV
	FM Stereo	-25μV
50dB Quieting sensitivity	FM Mono	1.6μV
	FM Stereo	19μV
Capture Ratio (FM)		2 dB
Image Rejection		100 dB
Harmonic Distortion	FM Mono	0.15%
	FM Stereo	0.20%
Signal/noise ratio	Mono	80dB
	Stereo	78dB
Channel separation	1kHz	45dB min.
Frequency Response	±0.5 dB	20Hz - 15 kHz
Tuning accuracy		±0.002%

Remote control

Yes

Physical specifications

Dimensions (W x H x D)	450 x 67 x 285mm
Net weight	4.56kg
Shipping weight	5.67kg

S 300 DUAL MONO INTEGRATED AMPLIFIER

Pre-Amp Section		
Line level inputs		
Impedance (R + C)	Unbalanced	10kΩ
	Balanced	20kΩ
Maximum input signal		7.5V
Frequency response (20Hz - 20kHz)		+0/-0.16dB
THD		0.04%
Line level outputs		
Output impedance Tape	Unbalanced	Source Z +10kΩ
	Balanced	Source Z + 1.5kΩ

Remote control

Yes

Power Amp Section

Continuous output power *		100W (20 dBW)
Rated distortion		<0.75%
Clipping Power †		108W (20dBW)
Frequency response		±0.02dB
Signal/noise ratio	ref. 1 W	79dB
	ref. rated power	99dB

Physical specifications

Dimensions (W x H x D)	450 x 150 x 395mm
Net weight	26kg
Shipping weight	28.12kg

* Minimum power per channel, 20Hz-20kHz, both channels driven, with no more than rated distortion

† Maximum continuous power per channel

S 500 COMPACT DISC PLAYER

Disc capacity		1 x 120mm or 80mm
Digital-to-Analogue conversion		24-bit DeltaSigma
Digital Filter		4 x interpolation
Analogue filter		4th order
Frequency response 5Hz-20kHz		+0, -0.15dB
De-emphasis error		<0.25dB
THD (at 0dB, 1kHz)		<0.005%
Dynamic range		96dB
Linearity		± 0.5dB; 0 to -90dB
Signal/noise ratio *		>112dB
Channel separation	1kHz	>100dB
	20 kHz	>100dB
Wow and Flutter		Quartz accuracy
Output impedance		120Ω
Output level	0dB Unbalanced	2.2V rms.
	0dB Balanced	4.4V rms.
Digital error correction		CIRC with double error correction in C1 and C2
Digital code output	Unbalanced	SPDIF BNC
	Balanced	AES/EBU XLR

Remote control

Yes

Physical specifications

Dimensions (W x H x D)	450 x 67 x 285mm
Net weight	5.04kg
Shipping weight	7.03kg

* (A-weighted, measured with all zeroes test disc)