1130 Stereo Preamplifier

Date of manufacture : Jan 87 - Feb 89

Please note that this document contains the text from the original product brochure, and some technical statements may now be out of date

- Extremely low noise and high headroom for a total dynamic range exceeding 105 dB in every stage.
- Wide-range discrete phono preamp, switch-able for low-noise operation with MM and MC cartridges.
- Bass EQ and infrasonic filtering for solid, powerful deep bass without boomy midbass or rumble.
- Overload-proof line-level inputs for digital disc and tape.
- Powerful headphone amplifier circuit; no power amp needed for full-volume headphone listening.

The NAD 1130 continues the NAD tradition of remarkable price/performance value. An audiophile-quality preamplifier at an extraordinarily low price, the NAD 1130 is the optimum choice for listeners who want a simple, high-performance control centre for use with a powerful amplifier, a bi-amplified system, or active powered loudspeakers.
Do not be deceived by the 1130's external simplicity and bargain cost; this is not a compromise product, nor a halfway step toward high-quality sound. Its economy is a result of simple but functional controls, canny engineering, efficient manufacturing, modest input/output flexibility, and the elimination of seldom-used features. Behind its modest front panel the 1130's circuitry-and its sonic performance-are the equal of most preamplifiers costing two or three times more.

Circuit Features

Wide-Range Phono Preamplifier. As long as vinyl phono-graph records remain an important high-quality music source, the phono preamp stage will be the heart of any fine preamplifier- its most important circuit and potentially its weakest link. In contrast to the budget IC stage used in many preamplifiers today, the phono section of the NAD 1130 is a recently designed discrete-transistor circuit with a very precise RIAA equalisation network, whose performance equals or exceeds that of far more expensive preamps.

- The 1130 lets you take full advantage of today's high quality LPs, because its phono preamplifier is audibly quieter than most other preamps (and quieter than any record). In fact its residual noise level is close to the theoretical limit set by the cartridge itself. This is because the design is optimized, not for the usual short-circuit input, but for the impedances of real magnetic cartridges.
- For low-output moving coil cartridges a rear-panel switch re-sets the preamp's parameters to provide 20 dB of added gain with extremely low noise. It is quieter than many separate pre-preamplifiers, and it lets you avoid the high cost and hum problems of step-up transformers.
- The phono circuit interfaces correctly with the high im-pedances of moving-magnet pickup cartridges, avoiding com-plex impedance interactions that can alter the pickup's fre-quency response.
- The input capacitance is switch-selectable, allowing you to provide the loading that the cartridge needs for flattest response.
- The dynamic range of the phono stage, over 105 dB, is ample for the widest-range digitally mastered recordings.

Infrasonic Filtering

Turntable rumble, floor vibration, tone-arm/ stylus resonance and radio interference. Such extraneous signals can impair an amplifier's handling of musical sound.
They are likely to waste amplifier power, produce excessive woofer cone excursions, and may cause audible intermodula-tion distortion. The precise, minimum-phase, audio bandpass filtering in the NAD 1130 strips off such interference while preserving accurate response at audible frequencies, ensuring the cleanest possible amplification of the musical signal. If not desired, the filter can be bypassed.

Bass EQ

The NAD Bass Equaliser sharply boosts only the bottom octave of audible response, restoring the rolled-off bass of many recordings and effectively extending the useful deep-bass reach of many loudspeakers. The result is a satisty-ingly solid bottom end without boomy mid-bass.

Musically Useful Tone Controls

In the NAD 1130 the Bass and Treble controls have been designed so that, at moderate boost/cut settings, they provide musically useful corrections at very low and high frequencies at the same time the midrange from 300 to 1500 Hz remains essentially flat. Since high circuit impedances often add a subtle veil of noise to reproduced sound, the 1130 employs a quiet high-current tone control am-plifier stage with low impedances throughout.

Digital-Ready Dynamic Range

The 1130's Compact Disc, Video, and Tape inputs are fed directly to the Volume control, and so cannot be overloaded by high-level signal peaks. The 1130's total dynamic range exceeds that of the widest-range digital recording systems.

High Current Output Buffer

In addition to its conventional preamp output, the 1130 has a high-current output stage that can produce output signals of up to 15 volts, which are fed both to the front-panel headphone jack and to an extra set of "high level" preamp output jacks on the rear panel.
With this circuit the 1130 can drive virtually all non-electro-static headphones to full output. And it can easily drive several power amplifiers in parallel, drive professional 600-ohm studio equipment, or drive the long connecting cables required for active powered loudspeakers or for remotely located power amplifiers.

Designed for Value

NAD stereo components have been praised around the world for their unusual combination of mod-est pricing, uncomplicated controls, advanced engineering, and state-of-the-art sonic performance. The NAD 1130 preamplifier is squarely in that tradition. For accuracy, for freedom from noise and distortion, for transparent and supremely musical sound quality, the 1130 is unmatched in value.

PRE-AMP SECTION

Phono input		
Input impedance *(R and C)*		47kΩ / 200pF
Input sensitivity, 1kHz	MM	1.25mV ref. 0.5V
	MC	0.08mV
Input overload at 20Hz / 1kHz / 20kHz		20 / 200 / 1700mV
Signal/Noise ratio *(A-weighted with cartridge connected)*	MM	76dB ref. 5mV
	MC	76dB ref. 0.5mV
THD *(20Hz - 20kHz)*		<0.2%
RIAA response accuracy	MM	±0.2dB *(20Hz - 20kHz)*
	MC	±0.2dB *(50Hz - 20kHz)*
Line level inputs		
Input impedance *(R and C)*		20kΩ / 450pF
Input sensitivity ref. 0.5V		80mV
Maximum input signal		>10V
Signal/Noise ratio *(A-weighted ref 0.5V)*		98dB
Frequency response		±0.2dB
THD		0.01%
Line level outputs		
Output impedance	Pre-amp	220Ω
	Tape	Source Z + 2kΩ
	Phones	120Ω
Maximum output level	Pre-amp	>12V
	Tape	>10V
	Phones	>8V into 600Ω
		>250mV into 8Ω
Tone controls		
Treble		±7dB at 10kHz
Bass		±10dB at 50Hz
Remote		No
NAD Link		No

PHYSICAL SPECIFICATIONS

Dimensions (W x H x D)	435 x 81 x 263mm
Net weight	3.7kg
Shipping weight	4.4kg
Power consumption (120 ~ 240V, 50/60Hz)	20W

Dimensions are of unit's cabinet without attached feet; add up to 18mm for total height.

Dimension depth excludes terminals, sockets, controls and buttons.