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# 7100 Stereo Receiver

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Date of manufacture : ? - Nov 89

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note that this document contains the text from the original product brochure, and some technical statements may now be out of date

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Our Monitor Series stereo receivers are unique in the industry. No design compromises are made simply to meet a price point. Rather, NAD's receivers contain exactly the same circuitry as NAD's high-performance separates. The 7100 consists of the 3100 integrated Amplifier, with its astonishingly large margin of dynamic headroom for the uncompressed peaks and climaxes in today's digital recordings, combined with a very sensitive and selective digital tuner.

A remote control is included for added convenience, allowing armchair operation of numerous key functions; volume, tuning (14 presets or station search), low level muting, six input selectors, and power on off. The remote control actuates a miniature DC motor on the volume control shaft, avoiding the potential noise and distortion of electronic volume circuits.

The tuner section of the 7100 employs substantially the same circuitry as NAD's 1700 Preamplifier, Tuner-including a sensitive dual-gate MOSFET input stage, a low-distortion quadrature detector, a PLL multiplex decoder with uniformly wide stereo separation, and a three-stage e I.F. circuit whose narrow-I.F. I mode cleanly extracts weak signals from the skirts of strong stations. FM NR improves the listenability of stereo signals and provides a 50 dB stereo quieting sensitivity of just 26 dBf (5.5µV into 75 ohms). Up / down buttons provide manual tuning or skip to the next strong station.

With overload-proof line inputs, a feedback-operated volume control, and quiet low-impedance tone-control circuits, the 7100 accommodates a dynamic range greater than 110 dB, preserving the transparent clarity of the finest recordings. The MM, MC phono pre-amp has very low noise, precise RIAA equalisation, correct interfacing with the complex impedances of phono pickups, and plenty of headroom for high-level peaks without distortion.

Based on the 3100 Amplifier, the 7100 produces 50 watts/channel of continuous power and over 200 watts/channel of tone-burst power for music. In bridged mode with the companion 2100 power amp, those ratings are doubled. The high-current output stage can deliver 30 ampere peaks for precise electromagnetic control of voice-coil motion and will drive impedances as low as 2 ohms with ease and authority. With the greatest ratio of useful power to price of many receivers on the market today, the 7100 Receiver is an astonishing value.

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## PRE-AMP SECTION

### Phono input

Input impedance ( <i>R and C</i> )	MM	47k $\Omega$ / 100pF
	MC	47k $\Omega$ / 100pF
Input sensitivity, 1kHz	MM	0.35mV ref. 1W
	MC	0.025mV ref. 1W
Signal/Noise ratio ( <i>A-weighted with cartridge connected</i> )	MM	75dB ref. 5mV
	MC	75dB ref. 5mV
THD ( <i>20Hz - 20kHz</i> )		<0.04%
RIAA response accuracy ( <i>20Hz - 20kHz</i> )		$\pm$ 0.5dB

### Line level inputs

Input impedance ( <i>R and C</i> )		50k $\Omega$ / 500pF
Input sensitivity ( <i>ref. 1W</i> )		20mV
Maximum input signal		>10V
Signal/Noise ratio ( <i>A-weighted ref 1W</i> )		94dB
Frequency response ( <i>20Hz - 20kHz</i> )		$\pm$ 0.5dB

### Line level outputs

Output impedance	Pre-amp	600 $\Omega$
	Tape	Source Z + 1k $\Omega$
Maximum output level		>10V

### Tone controls

Treble		$\pm$ 9dB at 10kHz
Bass		$\pm$ 10dB at 50Hz
Bass EQ		+3dB at 55Hz
		+6dB at 36Hz
Infrasonic filter ( <i>Switchable</i> )		-3dB at 12Hz, 12dB / octave

## POWER AMP SECTION

Continuous output power into 8 $\Omega$ *		60W (17dBW)
Rated distortion ( <i>THD 20Hz - 20kHz</i> )		0.03%
Clipping power ( <i>maximum continuous power per channel</i> )		70W
IHF Dynamic headroom at 8 $\Omega$		+6dB
IHF dynamic power ( <i>maximum short term power per channel</i> )	8 $\Omega$	200W (23dBW)
	4 $\Omega$	250W (24dBW)
	2 $\Omega$	330W (25dBW)
Damping factor ( <i>ref. 8<math>\Omega</math>, 50Hz</i> )		>100
Input impedance		10k $\Omega$ / 600pF
Input sensitivity ( <i>for rated power into 8<math>\Omega</math></i> )		850mV
Frequency response		3Hz - 100kHz +0, -3dB
Signal/noise ratio	ref. 1W	100dB
	ref. rated power	117dB
THD ( <i>20Hz - 20kHz</i> )		<0.03%

### Bridged Mode

Continuous output power into 8 $\Omega$ *		100W (20dBW)
IHF Dynamic headroom at 8 $\Omega$		+7dB
IHF dynamic power ( <i>maximum short term power per channel</i> )	8 $\Omega$	500W (27dBW)
	4 $\Omega$	660W (28dBW)

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**FM TUNER SECTION**

Input sensitivity	Mono -30dB THD+N	11dBf (1.0 $\mu$ V/75 $\Omega$ )
	Mono 50dB S/N	14dBf (1.4 $\mu$ V/75 $\Omega$ )
	Stereo 50dB S/N	26dBf (5.5 $\mu$ V/75 $\Omega$ )
	Stereo 60dB S/N	37dBf (20 $\mu$ V/75 $\Omega$ )
Capture ratio (45 - 65dBf)		<1.6dB
AM rejection (45 - 65dBf)		>60dB
Selectivity, alternate channel		70dB
Selectivity, adjacent channel		6dB
Image rejection		>80dB
I F rejection		>120dB
Harmonic distortion	Mono	0.1%
	Stereo	0.1%
Signal/Noise ratio	Mono	82dB
	Stereo	78dB
Frequency response $\pm$ 0.5dB		30Hz - 15kHz
Channel separation at 1kHz		50dB

**AM TUNER SECTION**

Usable sensitivity	300 $\mu$ V
Selectivity	35dB
Image rejection	50dB
I F rejection	35dB
Signal/Noise ratio	45dB
Harmonic distortion	0.5%
Remote	Yes
NAD Link	No

**PHYSICAL SPECIFICATIONS**

Dimensions (W x H x D)	435 x 106 x 390mm
Net weight	11kg
Shipping weight	12.7kg
Power consumption (120 ~ 240V, 50/60Hz)	330VA

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

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

Dimension depth excludes terminals, sockets, controls and buttons.