

NAD 312

Integrated Amplifier

- **2 x 25 Watts continuous power into 8 ohms**
- **75 watts dynamic power into 2 ohms**
- **line inputs, including two tape in / outs**
- **All Discrete circuitry including phono stage**
- **Short signal path from input to output**
- **Tone controls defeat switch**
- **Soft Clipping**

NAD has always enjoyed a formidable reputation when it comes to budget amplifiers. The NAD Model 312's predecessors, the legendary Model 3020 and Model 302, (European Amplifier of the Year 1993/4) have been probably the world's best selling integrated amplifiers in their price range.

Although much from the Model 302 has been retained, there have been numerous improvements for the Model 312, without changing the basic hallmarks for any NAD component; excellent performance and value for money.

Flexibility

Flexibility is an NAD amplifier's strongest point. The Model 312 has 6 line inputs (including 2 tape in/outputs with dubbing facility) and a MM phono input. The pre-amplifier section can be separated from the power amplifier for easy upgrades (bi-amping, for instance) or adding ancillary equipment without making the Model 312 redundant. The headphone socket will drive virtually any non-electrostatic headphone.

It is fashionable to omit tone controls nowadays: However, provided that the tone controls are properly designed they can be a really useful tool to make improvements to the overall sound. The Model 312 tone controls only work at the frequency extremes leaving the critical mid-band essentially unaltered. The tone control circuits can be completely bypassed by using the tone defeat switch.

Performance

The high level of performance is achieved by using discrete circuitry only, even the phono section - so often ignored by other manufacturers - boasts precision metal film resistors and close tolerance polypropylene capacitors to provide accurate equalisation, low distortion, a wide dynamic range (>100dB) and extremely low noise.

Instead of using switches directly behind the front panel for the input selector, the Model 312 has the switches located close to the back of the amplifier, avoiding long PCB tracks which can introduce distortion and degrade channel separation and cross-talk. The switches are activated by long push rods from the front panel.

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A generous power supply and over-rated output devices further lead to low noise and low distortion for the entire amplifier. The use of rugged output devices also means that the amplifier is reliable and can deliver high output current. Even loudspeakers with complex loads (such as low impedances) can be driven with ease.

The Model 312 also incorporates NAD's acclaimed switchable "Soft Clipping" circuit which significantly reduces the risk of damage to loudspeakers due to prolonged high power operation.

The combination of flexibility, performance and price make it difficult to overlook this new NAD amplifier when selecting the components for a budget system. The Model 312 is another true HiFi classic in the making.



Specifications - NAD 312

Continuous average power output into 8		25W (14dBW)
(Min power per channel, 20Hz - 20kHz both channels driven with no more than rated distortion)		
Rated distortion (THD 20Hz - 20kHz)		0.03%
Clipping power (max continuous power per channel)		40W
IHF dynamic headroom at 8		3dB
IHF dynamic power (max short term power per channel)	8	50W (17.0dBW)
	4	60W (17.8dBW)
	2	75W (18.7dBW)
Damping factor (ref. 8 50Hz)		>60
Frequency response	20Hz - 20kHz	±0.3dB
	3Hz/70kHz	-3dB
THD (20Hz - 20kHz, from 250mW to rated power)		<0.03%
Input impedance (R and C)	Line inputs	20k /500pF
	Phono input	47k /200pF
Input sensitivity (ref. rated power)	Line inputs	165mV
	Phono input	2.7mV
Signal to noise ratio (A weighted)		90dB ref. 1W
		104dB ref. rated power
Signal to noise ratio Phono (A weighted, with cartridge)		77dB ref 5mV
Frequency response (20Hz - 20kHz)		±0.5dB
Preamp output impedance		220
Tape output impedance		Source Z + 2k
Headphones output impedance		220
Treble control		±7dB at 10kHz
Bass control		±10dB at 50Hz

Physical specifications

Dimensions (W x H x D)	435 x 95 x 285mm
Net weight	6kg
Shipping weight	7.5kg
Power consumption	160W

NOTE: NAD reserves the right to change specifications or design at any time without notice. All specifications are those in effect at time of printing.