

NAD 510

Compact Disc Player

- **Budget entry level single disc CD Player**
- **Bitstream digital-to-analogue converter**
- **Separate, regulated power supplies for the analogue stages**
- **Low output impedance for low cable/load interaction**
- **Informative display with switchable track, time and repeat**
- **Random Play**
- **Repeat mode for single track or entire CD**

Background

Over the years NAD has built up an enviable reputation for building fine CD players offering outstanding value for money. The latest model, the NAD 510 will further enhance that reputation.

As always, sonic performance is the first priority at NAD. By deleting the remote control and many seldom used features, the NAD engineers could spend the money saved on design and engineering directly related to performance. Not surprisingly, as a direct result of this approach the sound quality belies the NAD 510's keen price. Behind the deceptive simple front panel lies sophisticated circuitry.

Design

As with all NAD CD players, particular attention has been paid to keep the analogue path free from RF interference (which can otherwise severely contaminate the purity of the audio signal). For a start, all circuitry not directly related to the sound itself (transport, servo's, display drivers, etc.) has been relegated to separate circuit boards. The audio section has its own dedicated PCB located directly behind the output socket, minimising the length of the signal path and physically keeping it removed from the other boards. Separate power regulators for the digital and analogue sections isolate the two electrically as well, and furthermore, careful lay-out of the PCB tracks around the Digital-to Analogue converter helps to contain any remaining RF.

For the NAD 510 the much acclaimed Bitstream Digital-to-Analogue single bit converter chip was chosen for its excellent low level linearity. The output impedance is very low at 110 Ω , making the NAD 510 less sensitive to cables or the ancillary equipment it is partnered with. Paired with a 5-pole filter in the analogue stage and using high grade components, the result is an unparalleled open, rich and detailed sound that is commonly only available from more expensive machines.

The understated yet comprehensive display gives the listener all the vital information required to access and enjoy the selected music. The track number is displayed and for those who regularly transfer CDs to cassette tape, the button displays the current time elapsed or remaining for complete CDs or individual tracks.

A "calendar" type section in the display gives immediate visual information how many tracks in total there are on the CD.

RANDOM gives the listener a random selection of all tracks on the disc in play and REPEAT allows repeat playing of the disc or individual tracks. Individual tracks are easily accessed by SKIP (Forward and Back). SCAN (Forward and Back) gives an aural precis of individual tracks, giving the listener the opportunity to reach specific sections of the track.

Anyone on a tight budget but interested in a high performance CD player without frills should put the NAD 510 at the top of their shortlist.



SPECIFICATIONS - NAD 510

Disc capacity	Single disc 120mm or 80mm
Digital-to-Analogue conversion	Bitstream
Analogue filter	5 pole active
Frequency response 5Hz-20kHz	±0.3dB
De-emphasis error	<0.2dB
THD (at 0dB, 1kHz)	0.002%
Dynamic range	98dB
Signal to noise ratio	>100dB
(A-weighted, measured with all zeroes test disc)	>110dB
Channel separation @ 1kHz	Unmeasurable (Quartz accuracy)
Wow and Flutter	120
Output impedance	2.2V rms
Output level @ 0dB	CIRC with double error correction in
Digital error correction	
C1 and C2	

Physical specifications

Dimensions (W x H x D)	435 x 95 x 290 mm
Net weight	4.6kg
Shipping weight	5.5kg

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.