

NAD 514

Compact Disc Player

- **MASH Digital to Analogue converter.**
- **Digital Output**
- **CDR (Controlled Dynamic Range) for late night listening**
- **DC coupled output**
- **Remote control with direct track access**
- **NAD-Link**
- **Programmable for up to 20 tracks**
- **Informative display with four different time modes**

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 514 will further enhance that reputation.

As always, sonic performance is the first priority at NAD. Rather than adding many seldom used features or going for "overkill" on a single aspect of the design, the NAD engineers have concentrated on the design itself to offer the best performance possible at the price. Behind the deceptive modest front panel lies sophisticated circuitry.

Features and Circuitry

The CDR feature allows you to listen to CDs at low levels, without the soft passages becoming too soft, or the loud passages too loud. Unlike conventional compression circuits which suffer from distortion, pumping, noise and coloration, CDR works in the digital domain without any such artifacts. CDR is also very useful for making tapes for use in cars or personal stereos where soft passages will otherwise be drowned out by high ambient noise. Up to 20 tracks can be programmed in any sequence in the NAD's 514 memory, both from the front panel and the supplied remote control. Repeat of the entire disc as well as any pre-selected section or the programmed disc adds to the flexibility. The understated yet comprehensive display informs you which track is playing and time elapsed or remaining at the same time.

Not all digital outputs are equal. In the case of the NAD 514 careful attention has been paid so that best use can be made of the ever increasing number of products becoming available with digital inputs (DAT, DCC, MD recorders, outboard D to A converters, etc.). The output is buffered and isolated by a transformer from the converter itself and the output impedance has been carefully tailored to produce a precise 75 Ω impedance to ensure perfect matching. With the use of correct cables effects such as reflections, overshoot and spurious signals will be eliminated from NAD 514's digital output. With advances in DAC technology coming so rapidly there is a tendency for manufacturers to copy the "application notes" circuitry supplied with the Digital to Analogue converter chips. The end result is a series of CD players of various brands differing only in the number of seldom used features bolted on. Higher quality machines are less distinguished by performance or sound. NAD players totally ignore this hype, and the NAD 514 is no exception.

For the NAD 514 a MASH Digital-to-Analogue single bit converter chip was chosen for its excellent low level linearity. Instead of using a 4-pole filter in the analogue stage as is the norm with almost all other CD players utilising a MASH D to A, a 5 pole filter is used, removing spurious RF interference more effectively and keeping the audio band totally clean.

The output impedance is very low at 120 Ω , making the NAD 514 less sensitive to cables or the ancillary equipment it is partnered with. The output itself is DC coupled (no capacitors are present in the audio path). Any DC offset is canceled by servo circuitry constantly monitoring the output for any DC offset and re-regulating it back to zero if necessary.

Anyone interested in a high performance CD player without frills should put the NAD 514 at the top of their shortlist.



SPECIFICATIONS - NAD 514

Disc capacity	Single disc 120mm or 80mm
Programming capability	20 Tracks
Digital-to-Analogue conversion	18 bit 4 x oversampled
Analogue filter	5 pole active
Frequency response 5Hz-20kHz	±0.2dB
De-emphasis error	<0.2dB
THD (at 0dB, 1kHz)	0.002%
Dynamic range	98dB
Linearity	+0.5dB; 0 to -90dB
Signal to noise ratio (A-weighted, measured with all zeroes test disc)	>100dB
Channel separation @ 1kHz	>110dB
Wow and Flutter	Unmeasurable (Quartz accuracy)
Output impedance	120
Output level @ 0dB	2.0V rms
Digital error correction	CIRC with double error correction in C1 and C2
Digital code output	Sony/Philips serial data format
Remote control	yes

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.
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