

A chip off the old block...



...the Naim CD3

Since 1973, Naim has stressed that the quality of the source component determines the potential musical performance of the entire system. Now we have put 21 years of analog and digital experience into creating an affordable CD player with uncompromised performance. The result is the new CD3, which can be the rock-solid foundation for your whole system. Contact us to find out where to hear one.

- Same digital chips as the Naim CDS, our reference CD player.
- Modular internal design allows for future upgrades.
- Low-mass magnetic CD clamp.
- Non-magnetic aluminum chassis controls eddy currents.
- Glass-phenolic swing-out isolation tray.
- Eleven low-noise regulated power supplies minimize jitter.
- Proprietary time-aligned, linear phase active filters.
- Critical components matched by hand.
- Programmable; large display; powerful remote.
- Five-year warranty included.

Design philosophy behind the Naim CD3.

Why one box instead of two?

The importance of the power supply.

The role of mechanical engineering in the design.

And finally...

Naim's 22 years of growth in the high-fidelity market is no accident. By taking an approach to designing equipment that is independent of fashion and "bells and whistles," Naim has created a line of products whose delivery of sound quality, reliability, and pleasure - to each customer, and over long periods of time - has sustained Naim's long term growth, and the high value of all Naim products in the field. It is a responsibility that everyone at Naim feels.

Many people ask us why the two box transport/converter became dominant in the specialty audio market. It was a long time after CD players were introduced that quality transport mechanisms were made available "off the shelf." However, the digital outputs on the first generation players allowed many specialist companies to easily create a separate converter. While this was just enough of an upgrade over the built-in converters to create and sustain a market for add-on units, it was by no means a complete player design. Later, dedicated transport boxes were developed that were more of an afterthought. So for reasons that have more to do with chronology than pure engineering, the separate converter market became well established.

Naim's attention to the power supply's performance is unusually intense. This is the ultimate source of a component's quality: no matter how good the rest of the design is, the performance will be restricted if the power supplies are not extremely clean. After much research into the fundamental problems inherent to existing CD players, Naim developed the CDS (Compact Disc System) in which a very large supply is built into a separate box for the lowest noise operation of all circuits. Low noise enables the digital circuits to operate accurately with super-

Naim's research has also indicated that mechanical aspects of the player design have a great bearing on performance. Contrary to popular belief, CD transport lasers do not produce digital ones and zeros; they produce a complex radio frequency analog waveform that has to be deciphered into digital code. The fidelity of this 11 MHz signal is dependent on the transport and its support. The transport benefits from the same mechanical precision that would be applied to a quality turntable. Hence, Naim players have fully tuned suspensions.

A top loader is ideal because it is not compromised by disc loading mechanisms. In the CD3, a swing-out tray is employed that effectively maintains the

We can assure you that these technical points are only the tip of the iceberg when it comes to Naim's ingenuity. Suffice to say that it all adds up to a high performance result designed to give years of listening pleasure. Our hope is that you will enjoy

The CD3 received the attention of all the Naim engineers from start to finish. Naim's objective, simply put, was to make an affordable CD player that didn't sound like a CD player; a rare feat at any price. Sonically, this had already been achieved with the CDI and CDS, which was a good starting point. Hence, some of the CD3's design is derived from these two players. The cost had to be held down, however, so much of the same quality had to be coaxed from fewer parts and a design that was less labor intensive to build.

Over time it became clear that when high frequency data is transmitted to a separate converter box, its accuracy is compromised by jitter - the Frequency Modulation (FM) of a digital signal - that adversely affects audio performance. Naim, by using their expertise in FM radio design, determined that conventional two-box players are prone to jitter. Many high end designers have tried with all kinds of expensive add-on devices, interconnects, and processing, to cure the problem. Naim's solution is simply to prevent it. No separate converter box is used in any Naim player, and Naim carefully isolates the transport and converter within one box. There is no need for digital outputs, interconnects, receivers or anything else to restrict performance. This is the future of CD player design, and many manufacturers are already following our lead.

low jitter. The CD3 also has an extensive power supply using an over-sized toroidal transformer and select reservoir capacitors, followed by eleven hand measured and selected power regulators. This is more substantial than many more expensive designs. But anyone can throw expensive parts at something; it is how they are used that determines how quiet and smooth the power is going to be. This is where Naim's experience with CAD-CAM design, good component selection, and good listening criteria come into play.

benefits of top loading and yet neatly rotates back inside the player. Naim utilizes a light-weight, isolated magnetic clamp that holds the disc firmly without adding mass. This is desirable because the disc has to undergo instant speed changes which would be hindered by a heavy, inertia prone clamp or a noisy spring clamp of the type found in motorized tray loaders. To accurately read the minute signals embedded in the CD, the disc must not be allowed to vibrate; hence the Naim CD clamp has small rubber contact points to prevent the drive motor from vibrating the disc. The CD3 tray is made of a glass reinforced phenolic material that damps vibration and its single pivot point elegantly decouples and isolates the transport and servo circuitry from the main chassis.

these products as much as we do, and like us, you will develop a large collection of music that you are really motivated to listen to.

That's the fun part for us.



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