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## NAD C372 Integrated Amplifier

by Philip Beaudette

The first-time buyer of a high-end audio system faces a daunting task. The market offers a plethora of products endowed with various features to fit every budget and sonic preference. Although this gives consumers the chance to audition numerous combinations, some budding audiophiles are undoubtedly overwhelmed by the many options. Audio manufacturers don't always help the situation. Advertisements use buzzwords and catch phrases touting the technology employed in products. Although this information helps some shoppers select the products that best meet their needs, for those who don't understand the technology, a big decision becomes more confusing.

It is refreshing to find a company that doesn't rely on gimmicks or exaggerated specifications to sell its goods. In the high-value, high-performance sector of the audio market, NAD is one such company. Their success is due to several factors. First, they are open about how they rate the power output of their amplifiers. For this reason, NAD amplifiers often sound more powerful than those of their competitors who advertise the same power output. Second, the simple



### Review Summary

**Sound** "Immense power on hand"; the C372... "brings the word 'effortless' to mind." However, the C372 is not an overbearing brute: "Although I have grown used to the ease with which it has driven every speaker to which it has been connected, I am still impressed by how natural it sounds playing back my favorite CDs." "The ability to sort out details was well demonstrated.... Although images were not cut out with a razor, they weren't smeared either."

**Features** "The C372 is rated at 150Wpc driven continuously into either 4 or 8 ohms at rated distortion (0.03%) across the audible spectrum," and the unit's PowerDrive circuit "measures the dynamic impedance of each channel and then computes the optimum power-supply voltage necessary to drive the output stage for maximum power and efficiency." The C372 has "A/B speaker switching, and a headphone jack, along with volume, balance, and tone controls."

**Use** "While the inclusion of tone controls provides a way to tame poor recordings, there is also a tone-defeat switch that allows bypassing these adjustments." "I do not like

appearance of NAD components tells buyers they are not paying for bells and whistles they don't need. Their money is being spent on what's inside the box. The third and most important reason for NAD's success is simply that their products sound good.

the [remote control's] volume buttons. Subtle adjustments are very difficult because a simple tap of the controls tends to raise or lower the volume in large increments."

**Value** "The C372 sits at that price point where I think you'll pay at least double to obtain substantial improvement."

As you are about to read, NAD's C372 integrated amplifier is no exception in any of these regards.

## Description

NAD, an abbreviation for New Acoustic Dimension, first appeared over 30 years ago when it introduced the 3020 integrated amplifier. The 3020 boasted 20Wpc, sold in the thousands of units, and ultimately became something of an audio legend. Since that time, NAD has earned an enviable reputation for building high-quality, superb-sounding components at reasonable prices. With the 3020 NAD practically invented the budget integrated market, and they have been at the forefront of this category ever since.

The appearance of most NAD products has changed little since the company began. Like all products in the classic series, the \$899 USD C372 comes in battleship gray. The NAD aesthetic is very minimalist and says a great deal about the company's philosophy. Nothing is included that shouldn't be, and there are no buttons or features one would really miss.

Weighing in at 27 pounds, the C372 measures 17 1/8"W x 5 1/4"H x 13 13/16"D. The C372 is rated at 150Wpc driven continuously into either 4 or 8 ohms at rated distortion (0.03%) across the audible spectrum. The fact that the same power output is rated for either a 4- or 8-ohm load may at first seem counterintuitive. Typically there is an inverse relationship between impedance and power output -- that is, as impedance decreases, the speaker becomes more difficult to drive, and the number of watts delivered to it by the amplifier increases.

To maintain a constant supply of power, NAD uses a proprietary circuit topology called PowerDrive. This circuit measures the dynamic impedance of each channel and then computes the optimum power-supply voltage necessary to drive the output stage for maximum power and efficiency. As a result, the amplifier is capable of high dynamic power with even low-impedance loads. This is useful for driving less-sensitive speakers and is the reason NAD amplifiers and receivers sound so powerful. Speaking of power, the C372 uses a high-current toroidal transformer made by the Swedish manufacturer Holmgren.

The front panel contains several input-selector buttons, A/B speaker switching, and a headphone jack, along with volume, balance, and tone controls. Green LEDs above each of the input selectors indicate which is being used, and an LED above the power switch shines amber when the C372 is in standby and green when it is on. While the inclusion of tone controls provides a way to tame poor recordings, there is also a tone-defeat switch that allows

bypassing these adjustments. For convenience, the C372 comes supplied with a full-function remote. This operates the integrated as well as an NAD CD player and tuner.

Although the back of the C372 is not as uncluttered as the front, a quick inspection reveals the level of flexibility offered. There are seven line inputs that can be used to connect all of one's ancillary equipment. There are also two pre-amp outputs. These can be used to add a second amplifier for biamping speakers. An obvious upgrade path would be to use NAD's own C272 stereo amplifier, which is gain-matched to the C372. However, since gain is adjustable on the pre-out, the C372 can be combined with virtually any amplifier. As an alternative to biampification, there is also the option of operating the C372 in bridged mode, increasing its power output to 400W (into 8 ohms). The second pre-out may also be used to add a powered subwoofer.

As with all of NAD's power and integrated amplifiers, the C372 benefits from the use of the company's Soft Clipping circuitry. With this circuit switched on, the C372 will shut down if it is driven too hard and starts to clip. This feature is useful because an amplifier driven into clipping can damage the loudspeakers to which it is connected. All of my listening for this review was done with the Soft Clipping feature turned on.

While the C372 is well built and easy to use, I do have a couple of minor gripes. The first is the remote. While the buttons are large and well placed so that basic operation can be done without even looking, I do not like the volume buttons. Subtle adjustments are very difficult because a simple tap of the controls tends to raise or lower the volume in large increments. Obviously the volume knob on the unit itself makes this task easier. However, if you're comfortably seated late at night and need to find the right volume to avoid waking the household, trying to do so with the remote can be frustrating. My other complaint is that the binding posts are a little too close together. Banana plugs are easy to connect, but getting my fingers in to connect bare speaker wire was more difficult than I had anticipated. It took some time to feed the wire correctly so that I was satisfied I had made a solid connection.

## Sound

Anyone who hears an NAD integrated amplifier for the first time is immediately struck by one thing: the immense power on hand. This is as true of the entry-level C320BEE as it is for the C372, whose sound brings the word "effortless" to mind. Listening to this integrated, I couldn't help but think that it wasn't really trying. Even when the C372 was pushed to play at higher volumes than I can personally tolerate, I had the sense that it hadn't broken a sweat. To some degree this was confirmed by the fact the C372 only became slightly warm following extended listening sessions. Although I have grown used to the ease with which it has driven every speaker to which it has been connected, I am still impressed by how natural it sounds playing back my favorite CDs.

### Associated Equipment

One example of this is Massive Attack's *Mezzanine* [Virgin Records 45599]. The first

**Loudspeakers** – PSB Image 4T.

**Digital** – NAD C542 CD player.

**Interconnects** – AudioQuest Copperhead.

**Speaker cables** – UltraLink.

track, "Angel," begins with bass that digs deeper than that of just about any other disc in my collection (save for the pipe organ on some of the classical recordings I own). This creates a dark, gloomy atmosphere that permeates the rest of the album. The profound depth of the bass on this and other tracks easily fills a room and immerses the listener in an ominous

soundscape. Although my speakers were unable to reproduce the lowest notes, the C372 did an exceptional job of rendering these passages, placing me in the middle of the murkiness. To its credit, the C372 kept a firm grip on the low frequencies, never allowing them to become boomy or loose. The clean portrayal of the deep bass on "Angel" did not draw attention to itself. It merely created ambiance, so I was free to enjoy what was happening in the rest of the song.

The aspect of music to which I am most sensitive is vocals. I always pay attention to lyrics and the manner in which they are delivered. When a singer is able to capture emotion and intensity in a song, he or she has the ability to help listeners lose themselves in the music. One of my favorite vocal pieces is the late Jeff Buckley's sorrowful rendition of Leonard Cohen's "Hallelujah" on the album *Grace* [Sony 57528]. A friend introduced me to Jeff Buckley's music several years ago, and although I think Buckley was a very good songwriter, I find that more than anything I am moved by the range of his voice and the expressive delivery of the lyrics he sings. On "Hallelujah," his range shines as much as anywhere else on the disc. The C372 did a fine job of conveying this. The space in which Jeff Buckley sings seems vast but empty, and the C372 gorgeously reproduced the reverberation of Buckley's electric guitar and the resonance of his voice, easily drawing me into the music and allowing the equipment to disappear altogether.

When Buckley reaches the climax at the end of this track, his voice soars into the room, and is well extended without being harsh or bright. On the more aggressive title track, his vocal assault in the final verse is backed by the equal drive of his band. Drums were reproduced with sufficient thump, and the energetic rhythm of the electric guitar established an explosive finale that was tonally balanced and engaging. The C372 portrayed it all.

So far I've mostly described the muscular nature of the NAD C372. Typically, this is a characteristic of many solid-state designs. Of course, music isn't simply about power and drive. The best audio components not only play with authority, but are also sensitive to the subtle details that are an essential aspect of high fidelity. This separates the good from the great. In this regard, the NAD certainly leans towards the latter. No, you won't hear the resolution of the finest separates, but you'll be surprised how close you can get. Listening to Morten Lauridsen's beautiful choral composition *Lux aeterna* [Hyperion SACDA67449] sung by Polyphony with the Britten Sinfonia under the direction of Stephen Layton, I noted that the ability to sort out details was well demonstrated. Individual voices were rendered distinctly, with a good sense of depth in the choir. Although images were not cut out with a razor, they weren't smeared either. Again, my attention was not drawn to the C372, but rather to the music. This goes a long way

toward enjoying a performance.

If you were to stop reading now, you'd think the C372 could do no wrong. However, as with any piece of audio equipment, there are areas in which one might seek improvement. Sonically speaking, the C372 is extremely competitive at its price, but there are integrated amplifiers that sound more open, produce more focused images, and play cleaner at higher volumes. These improvements do not come cheap, however. For example, while listening to a recording of J.S. Bach's violin concertos [Naxos 8.550194] through a Bryston B100 SST integrated costing significantly more than the C372, I noted sound that was more transparent, allowing me to get an improved sense of the space around the instruments. The soundstage itself became more focused and easier to discern. Obviously, though, the ability to uncover that extra layer of detail comes at a considerable cost.

In the end, the C372 sits at that price point where I think you'll pay at least double to obtain substantial improvement. That I can even compare this integrated amplifier to its much-higher-priced competition is testament to its quality.

### **Comparison**

One integrated amplifier I have spent enough time with in my system to compare to the C372 is the Harman Kardon HK 3480. While it sells for only half the price of the C372's price (\$449), it is also a high-current integrated boasting similar power (120Wpc). Even so, I found the difference between these two products to be quite substantial. Perhaps the easiest way to explain the differences is to liken them to drinking a full-bodied stout versus a lager. The NAD is the stout, and the Harman Kardon is the lager. The former was more robust in its presentation of music, and the latter more laid-back, more overtly "pleasant" by comparison. This made the HK 3480 easier to listen to, though a bit tame. Bass was not as full as with the C372, and high frequencies seemed a little smoothed over. I liked the sound of the HK 3480, but I found it too polite.

Although there are some who will find HK 3480's sound a little more easy-going, I found it less involving, and in that sense less realistic. Music is dynamic, and played back at high levels it shouldn't sound restrained. While I prefer a more up-front presentation, I know there are people who tend toward something more subdued. Your ears will have to decide which sound suits your taste; for me, it was the NAD C372's.

### **Conclusion**

I'll never forget the first time I connected the C372 up to my PSB speakers. Until that point, I had been using a home-theater receiver rated at 75Wpc to drive the Image 4Ts. Although I really liked the sound of this setup (it was the first component system I ever owned), replacing the receiver with an integrated amplifier really opened my eyes (or more specifically, my ears) to the potential of my speakers. The C372 breathed new life into them and allowed them to play with greater clarity and authority than I had thought possible.

If you listen to a lot of music and don't require the extra channels of a home-theater receiver, a good integrated amplifier is a must. While there is no shortage of them on the market, there are few that I have listened to which offer such a high level of performance, such seemingly unrestricted power and overall musicality, as the NAD C372. For the money, the C372 is an exceptional piece of audio equipment, and a safe bet if musical satisfaction is your priority. While it may lack the refinement, transparency and detail of the finest integrated amplifiers, you will pay substantially more for that level of sonics. At its price, the C372 has few rivals.

...Philip Beaudette

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**NAD C372 Integrated Amplifier**

**Price:** \$899 USD per pair

**Warranty:** One year parts and labor.

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