

AUDIOPHILE

WITH HI-FI *answers*



FIRST TEST: NEW NAIM 52
'The best amp I've ever heard'

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Digest of Hi-fi



Truly dedicated hi-fi users are intent on obtaining maximum musical involvement from their hi-fi set-up. Never mind the number of boxes, the inconvenience of the wiring, the lack of tone control adjustment and the problems setting up the system to obtain optimum performance. What counts is the sound. Naim Audio has played a key role in establishing this no-compromise approach to hi-fi. But now, it's in danger of shocking even its most ardent fans. The new Naim NAC52 preamp has taken several years to develop, and has been designed not only to redefine the state of the art in sound quality but to be easy and satisfying to use, too.

The key to the NAC52's design is that it is a six-input remote control preamp with the minimum of facilities and clutter. Complete with its own dedicated power supply unit, you get both amp and power source for £4250. If that makes you want to cast down this magazine in a fit of fiscal outrage, allow me to suggest that you save your indignance until you've heard the product.

The NAC52 is unlike previous Naim preamps in several respects. To begin with it's twice their size. Its dimensions are the same as the company's larger power amplifiers, the NAP250 and NAP135, which measure 76mm high, 430mm wide and 300mm front to back.

Another major difference is that the NAC52's power supply is mandatory. Other preamps could be powered by Naim's older SNAPS or current HiCap power supplies, or by the inbuilt power supplies in the smaller NAP90 and 140 power amplifiers. There's no such choice with the NAC52: it will not operate without its NAC52PS, which cannot be used with the other preamps. The reason is simple. Whereas the HiCap was just a dual

rail supply, the NAC52PS is far more complex: it was described to me as 'six HiCaps in one case, with a few more tricks.' It has two sections: the first is the analogue supply stage which has 12 independent power supplies, one for each channel of the following: Input 1 (phono or line), Input 5 and 6 (line) and output stages, Filter circuits, Gain circuits, and Tape Buffer circuits. This connects to the preamp via a 16-contact cable whose dimensions are hawser-like. The second is the separate digital section, and this controls the preamp's logic circuits — for the motorised volume and balance controls and input switching. The digital circuits within the preamplifier are switched off when a control signal is not being received so that they do not interfere with the audio circuitry. Their connection with the power supply is via a regular five-way SNAIC interconnect.

The power supply is massive. It contains two discrete toroidal mains transformers: one relatively small, for the digital supply, and a 530VA monster the diameter of a dinner plate, to ensure that the analogue supplies do not run out of steam. This latter item is truly enormous, larger than those found in most power amplifiers. But this beast of a supply also has beauty: the construction, layout and wiring are exemplary and its build quality suggests that it could happily outlast someone with the life expectancy of Mephistopheles.

Naim has always recommended that when its preamps are powered by a stand-alone power supply they should be thoroughly warmed up before use and thereafter not be powered down. This, in my experience, has proved to be sound advice: better and more consistent sound quality results from leaving the preamp supply permanently powered. The NAC52, more so than any of the other preamps I have owned, is particularly sensitive in this respect, and listening to it during its warm-up period



NAIM IN LIGHTS

Review

Exclusive test of Naim's NAC52, the best pre-amp Malcolm Steward's ever heard





Rear view of the NAC52 (top)/ NAC52PS (below) combination shows DIN sockets in abundance, plus large 16-pin socketry for the hawser-like cable that connects the two together. Phono input, meanwhile, uses the BNC sockets preferred by Naim

proved the point graphically. It took a full five days to reach full strength, whereafter it sang like a bird. (That's no mixed metaphor — I'm referring to a Thunderbird!).

The NAC52 itself, despite its full remote control function, is still a true Naim preamplifier: there's nothing superfluous about it. All you get in the way of facilities is the ability to alter the volume setting, alter the balance, mute the output, switch the output between mono and stereo, and select the input device. In truth, the NAC52 offers a little more than this description suggests: two banks of input selector switches are fitted, the upper one controlling which source component is routed to the loudspeakers, the lower, which component is connected to the tape outputs for recording. The two banks of switches are independent so you can listen to the record deck while recording a radio broadcast or CD, for example. All the functions can be controlled from a small remote unit, or manually. The balance and volume knobs, via the remote unit and bright green LED indicators, give an immediate indication of the levels, so they can be quickly set to the usual desired position for a particular record. A far better system than just relying on aural indication.

Three of the six inputs are user-configurable simply by changing small plug-in printed circuit boards. The NAC52 is fully dual mono in construction and there are two large 'mother' boards, one per channel, which accept these smaller 'daughter' input boards via high quality gold-plated connectors. Input One is designed for use as the phono input: it is wired to BNC sockets, Naim's preferred connectors for tonearm cables. A range of suitable daughter boards allows for moving magnet, moving coil, and Linn Karma and Troika cartridges to be accommodated. Input Two, like all the line level inputs, is fitted with Naim's custom DIN sockets which use plugs with collars which lock the connection once it has been made. This input is duplicated, ie there are two sockets connected to it, one of which has a power connection to enable a second preamp (any of the others in Naim's range, such as the

NAC62 or 72) to be run off it to expand the input capabilities, if so desired. The second, non-powered, socket can be used as a regular input. Input Three is a straight line input, while Four, Five and Six are similar but also have output facilities. One of these should therefore be allocated as the 'tape' socket. (Note that users can assign any source to a suitable input.) Of the line inputs, numbers Five and Six can have their sensitivities altered by changing the 'direct connection' NA526 daughter boards (75mV/100kOhms) for the variable NA528 variety. A small preset potentiometer fitted to these allows a range of sensitivity adjustment between 25mV and 350mV. Those who worry about using Compact Disc players with Naim preamplifiers (well, they don't sound any good, do they? I mean, CD overloads them!) should note that like other Naim preamps the NAC52 will accept a healthy 7.5V up its line level inputs, so overload is not a problem!

Design

- Naim set out to build the best preamp it was possible to make.
- The NAC52 was designed to give ultimate flexibility to a wide variety of users.
- It was designed to look as good as it sounds.
- It is only to be used with the very best sources.
- Prerequisites in the electronics design were high transient capability and low quiescent noise.
- Infrared remote control supplied as standard.

Performance

- In my opinion, Naim has succeeded. If a better preamp exists, let me at it!
- It proves delightfully easy to configure for all sources.
- It may not look as good as it sounds, but it's an attractive item, nonetheless.
- The NAC52 epitomises the maxim 'garbage in — garbage out'.
- The amp is particularly quiet when at rest, and startlingly dynamic when roused.

Having installed the preamp at home, I gave it a week before I listened to it in anger. When the time came I hooked it up to my regular system, which has a Linn Sondek LP12 turntable fitted with the Naim ARO tonearm and Audio Technica ART1 moving coil cartridge as its primary source. I also used my Naim NAT02 tuner, and a Philips CDD882 CD transport through an Arcam Alpha Black Box 2, as line level sources. From the NAC52 the signal passed through a NAXO 2-4 electric crossover, powered by a HiCap psu, to a brace of NAP250 power amplifiers feeding Naim NA SBL active loudspeakers. To measure the claimed performance improvements for the NAC52, I had my regular NAC72/HiCap, until now the top-of-the-range Naim preamp, standing by for comparison.

Now, lest any cynic wishes to suggest that as a long term user of Naim equipment, and as one who is pretty heavily financially committed to the range, I might be unfairly predisposed towards the NAC52, let me disabuse them of that notion straightaway. More so than ever with this product I had to be 200 percent convinced of its merits. My wife takes careful note of entries in the family's chequebook. If I couldn't persuade her that I had to have the '52 — a task that could make Hannibal's crossing of the Alps look like a walk down to the local corner shop — I might as well not convince myself. That's one of the reasons why I called in *Audiophile with Hi-Fi Answers'* Managing Editor Jonathan Kettle, to ensure that I remained dispassionate during the listening.

The fact that the NAC52 represents a significant improvement over the NAC72 became apparent within a very short space of time. Certainly, in conventional hi-fi terms the NAC52 is 'better' and offers more of everything. Bass instruments, for example, are more extended, more controlled, exhibit more explicit note shape and timbre, and 'play tunes' more assertively. Such matters and considerations are easily articulated and dispensed with, and examples will be forthcoming when we discuss the music played. But what struck me more forcibly, listening to vocal music in particular, was

how much more the music communicated with me on an emotional level. Articulating this one runs the risk of sounding very 'deep and meaningless' as it represents an attribute that is both unquantifiable and extraordinarily subjective. Let me attempt the near impossible, however, with an illustration of what I'm trying to convey. I listened at length to some old, mono Verve recordings by Ella Fitzgerald and Louis Armstrong. These albums, on virtually any system, should demonstrate how close one can get to a performer through the medium of hi-fi. It's as though the artists are singing directly to *you* and you alone. You feel as though you're in very close proximity to the performers, a proximity that transcends physical distance. Via the NAC52 this impression was heightened to a degree that became alarming, almost frightening. Rather than sitting listening to four loudspeaker drive units vibrating air within the room, you felt as though Ella and Louis were seated on the chair next to you, a hand on one's shoulder, singing into one's ear. To describe the experience as intimate would be a gross understatement. I was struck by the system's ability to portray the voices with stunning veracity.

Before we get carried away with the intangible aspects of the amp's performance, let me discuss some of the more readily definable things I heard. First, there's the speed of the amp. It really is incredibly fast. But it's also very precise. Its presentation of timing information is therefore brilliantly sharply etched. The B52's *Roam* took an upswing in tempo that so surprised me I had to swap back to the NAC72 to see how it had sounded. The track's driving, crisp rhythm was apparent using the older preamp. But through the NAC52 that rhythm took on a greater sense of purpose. Notes stopped and started with a metronomic precision that forced me to reconsider the way in which various elements of the song were fitted together in terms of timing. In short, the music made more sense because the amp's performance captured the rhythmic structure of the songs to a greater degree.

Normally I listen to more contemporary than classical music. But the NAC52 encouraged me to delve into my classical LP collection more than usual. One piece of music which I've always felt wasn't best served by hi-fi systems was the opening movement to Jean Fery Rebel's *Les Elements*. Here the orchestra, the Academy of Ancient Music under Christopher Hogwood, is charged with representing the world as God's hand brings order out of chaos. During *Le Chaos*, the composer stretches the rules of harmony to breaking point. It is a difficult piece to listen to through most hi-fi without feeling uncomfortable. The NAC52 breezed through this obstacle course with elan. With the NAC72 it was like navigating an unfamiliar route with the aid of a good map and a compass.

It was not difficult but it required conscious effort. With the NAC52 you had the luxury of pre-programmed auto-pilot. The music might represent chaos, but using the NAC52 there was order within the chaos.

The NAC52 has a peculiar way with minor detail that manifested itself with all manner of music. Subtle instrumental sounds that give clues as to how an instrument is being played, and those nuances which differentiate, say, the tone of one sax player from another, were expounded clearly but without drawing undue attention to themselves. Take the Jeff Beck *Guitar Shop* album: is he playing with or without a plectrum? On most systems the explosive transients he wrenches from his Stratocaster would prompt an immediate yes. But is that really the case? The Naim preamp gave me the definitive answer.

After several weeks with the NAC52 I have to admit, that try as I might, I've yet to identify a weakness in the way in which it represents and communicates music. And believe me, I have spent as little time as possible away from it. I've never enjoyed my records, CDs and radio broadcasts so much (and yes, it sounds good with a respectable CD player too). The preamp has entertained and educated me by drawing me closer to recorded music than I've been before. So close, at times, that the experience was unnerving. I know it's an expensive item, and that fact alone will rattle some people's cages. For many others it will not be a question of can they afford one, but can they afford not to own one?

Editor's View

Audiophile with Hi-Fi Answers' Managing Editor Jonathan Kettle steps forward to give his impressions of the new Naim. He too finds himself knocked out by the sound of the NAC52...

Listening to the Naim NAC52 in the context of Malcolm Stewart's system was so engaging, I didn't get home till the early hours of the following morning. Few products have made such a profound impact. I was reminded of my initial exposure to Linn Isobariks when I heard for the first time a hi-fi system with apparently bottomless bass; I recalled the true sense of dynamic and total transparency I heard

The battery of listen/record selectors on the NAC52. The top row of buttons routes the source to the amp, the bottom row to a tape deck



from the Infinity IRS speakers at Winter CES two years ago, and the way I fell in love with the Linn Troika cartridge as it brought Schubert's *Winterreise* to life.

Naim has a hi-fi product here that manages to transcend the mechanics of hi-fi reproduction. That much was clear after the most cursory of comparisons. It has that rare quality of being able to cut through the mush and noise to the performance. It enabled me to gauge with no effort the intentions of the musicians as well as the results of those intentions.

Naturally, I wanted to hear how it performed in my system with records I knew intimately. Then there could be no doubt in my mind as to its capabilities.

At home I partnered it with a NAP140 power amp, comparing this combination with the Audio Innovations Series 1000/Second Audio Amplifier valve pre/powers that have been driving Snell Type Js so well for the last two or three months. The Naim combination is the best part of £1000 more expensive, and was not developed using the Snell speakers (unlike the Audio Innovations equipment). So the odds were stacked heavily against the NAC52.

The first album I tried was Eurythmics' *Savage*, using the track *I Want You*. I was immediately impressed at the way the NAC52 portrayed Dave Stewart's acoustic guitar. There was a precision, control and freedom to the sound that enabled his wonderfully relaxed yet powerfully dynamic playing to project very clearly. There was no hint of coarseness.

Little Feat's *Time Loves a Hero* had an extended stay on my turntable, as I compared in minute detail the NAC52/NAP140 with the Audio Innovations amps. Here's what I heard: with the Naim I was struck by the extra rhythmic impetus that the tambourines brought to the drum kit and cymbals, and I became aware of the importance of the electric piano in the music. The Audio Innovations amps played down the importance of both instruments, creating a comfortable but less alive and less vibrant performance. And Lowell George's vocals weren't as crisp and precise. He sounded as if he was slightly cupping his hands over his mouth. The violins swayed well but overall the music had a degree of predictability that it lost when using the NAC52/NAP140.

I was startled at the level of information the Naim combination extracted from the jazz albums I tried. Ben Webster's classic *Time After Time* was reproduced with a

staggering insight into the performance. I sensed the precision, power and physical effort that Webster was putting into his playing. Little squeaks of breath escaping from the mouthpiece, the tight lipping on the mouthpiece to control the pressure and even the feel of the breath . . .

Perhaps the most surprising result was listening to two performances of the wonderful *Beethoven String Quartet in A* on CD. The Philips Italiano Quartet performance with its neat, tidy but very precisely focused sound was more naturally reproduced than the more recently recorded digital recording of the Borodin Quartet's performance on Virgin Classics which seemed overblown and aggressively strident. I could picture only the Philips recording's acoustic, the musicians' breathing setting off a subtle reverberation in the acoustic. But I was also impressed by the way the Naims resolved the timbre and positioning of the violins, viola and cello.

'Naim has a new product here that transcends the mechanics of hi-fi reproduction.'

Having tried the Naim preamp in two very contrasting systems, using music ranging from post punk thrash to classical string quartet I'm convinced that the NAC52 is one of the most significant pieces of hi-fi electronics to be launched over the last two or three years. That it has a remote control and motorised volume pot, that it has very comprehensive input switching facilities and that it looks and feels very substantially built are added attractions. There may be some hidden, as yet unexplained technological innovations at the heart of this amp. But I suspect the real keys to its magnificently engaging way with music are its circuit board layout and power supply configuration. My one reservation is the quality of finish of the remote control. The poorly matched plastic end pieces give the unit a decidedly tacky feel, even if it is ergonomically well designed. I'm sure most of Naim's customers won't let a small thing like that stop them placing an order. Indeed I suspect that even at the stratospherically high £4250 asking price the Naim NAC52 is likely to be in very high demand.

■ **Right of Reply:** Naim had little to add to our review. What they did say makes good reading — see page 48.

What's behind the Naim?

For the head of one of Britain's best respected hi-fi companies, Julian Vereker has rather an unusual background. Back in the mid-Sixties he was developing engines and suspensions for Mini Coopers, racing the cars at weekends. Although he claims that his talent was for development rather than racing, in 1967 Vereker won 16 out of the 22 races he entered. With some substantial winnings behind him he retired that year, aged 22. Vereker's design and development technique led him to film associated machinery and, through a group of musical friends, to sound recording and building his own mixing desk. But he found that the reproduction provided by that first design was of an unacceptably low standard.

He soon realised the importance of amplification and spent a year teaching himself electronics, before starting to design amplifiers for his own use while producing mixing desks for the commercial market. The first Naim amplifier was sold in December 1971. Within two years Naim was supplying Capital Radio.

Nowadays the product roster includes not only a range of highly regarded pre- and power amplifiers, but two esoteric FM radio tuners, two innovative loudspeakers, and an unusual tonearm, the ARO. Experienced Naim-watchers were not too taken aback to discover that this latter item flew in the face of current wisdom and accepted practice — by being a unipivot. When launched it caused a stir, but soon justified its existence in comparisons with more conventional arms in dealers' demonstration rooms.

Unlike most manufacturers, Naim Audio is not market-led. Only one of its products — the 'baby' NAP90 power amplifier — resulted from requests from outside the company. All of the rest were developed from ideas and demands from within the workforce. Vereker explains the company's philosophy and attitude to product development. 'We've spent nearly all the past 20 years making products for ourselves, then discovering that other people wanted them too.'

Naim was, of course, one half of the infamous Linn/Naim axis which reshaped audiophiles' ideas of not only how hi-fi should be sold but how it should sound. It was after meeting Ivor Tiefenbrun of Linn in 1974 that Vereker moved Naim into the domestic market. Initially Naim insisted that only Linn's LP12 turntable was good enough to front a system which included its amplifiers, while the Scottish company promoted Naim's amplification as the best to drive its loudspeakers. There was never any formal alliance, however, and this became apparent when Linn brought out its first amplifier in the middle of the Eighties. Now these former allies had become rivals for the same turf. At that time Naim was also unhappy that it was unable to incorporate improvements into its amplifiers because it felt that the LP12 was not capable of fully realising the benefits. The company proceeded to produce a strictly limited number of modified Linn LP12s — the Armageddon turntables — which incorporated modifications (to the arm-mounting, motor, and drive electronics) to demonstrate what it was felt could be done to improve the deck's performance. Many saw this as the final severing of the entente between the two concerns.

By this time, Naim's own source components were waiting in the wings. These were the NAT01 and 101 FM tuners, and they were released to much acclaim. Some time later, there followed the SBL and IBL loudspeakers which both became extremely successful products. And last year saw the arrival of the iconoclastic ARO tonearm which has further fuelled the competitive fire. Hard on its heels comes the long-awaited NAC52 preamp, which has taken five years to develop. The time has been spent ensuring that the facilities offered by the amp would not compromise sound quality.

Naim's current total production runs at 15,000 units a year and is increasing at about 35 per cent a year. But this is not without its problems. Although production for the NAC52 was originally set at 25 units a month, demand for other product lines means that only ten units will be made each month. With 200 back orders to clear already, the immediate concern is to clear the backlog. The problems associated with interest in the NAC52 prior to its launch has convinced Vereker that in future, new products will be announced only when they are ready to be launched. We can only wonder what Naim's next surprise will be.



NAIM NAC52

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It is not our policy to comment on the subjective content of a review, preferring for people who are interested in our products to listen and decide for themselves. Having said this, we are of course delighted that one of our customers likes the 52 enough to feel that he must write about it in such a positive light.