

hi-fine GROUP TEST

Balanced connections, digital screens and seemingly endless cartridge matching options: the modern phono amp has a lot to offer. But which of our six will be the pick of the bunch?

PHONO STAGES £250-£1500

TESTED THIS MONTH

CLEARAUDIO NANO PHONO	£255
LEHMANN BLACK CUBE STATEMENT	£350
MUSICAL FIDELITY M1 VINYL	£700
PRIMARE R32	£850
ASTIN TREW AT8000	£880
CREEK WYNDSOR	£1500



Cutting-edge gear, cherry-picked by the Hi-Fi News editor



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Having to spend extra for a separate phono stage because your amp didn't come with one as standard used to be considered a means of overcoming a frustrating oversight. These days however, many audiophiles accept that to get the best out of your pick-up the use of a carefully chosen separate phono stage is *de rigueur*. And one with a variety of gain and load settings is essential future-proofing for anyone who is partial to a bit of cartridge-swapping when the mood dictates.

THE CONTENDERS

Thankfully, as the entry level Clearaudio in this month's group test demonstrates, you can have a well built model that will cater for both moving-magnet and moving-coil types (and with a choice of loading options for the latter) for comparatively little outlay.

All models under scrutiny in this test offer dual mono circuits, and Lehmann's Black Cube Statement, with its pro-audio credentials, represents the next rung on the ladder. It's also the cheapest model on test to feature part passive

equalisation (considered by many to be superior to all-active designs).

Both the Astin Trew and Musical Fidelity models offer balanced outputs, which will be welcomed by those with pre/integrated amps with corresponding inputs. The MF clearly majors on the user experience, with a digital interface that sets new standards at this price point for how a phono stage can be operated. Housed in a chassis that dwarfs the competition, the Swedish Primare represents the big bruiser of the group, with a meaty PSU, part passive EQ and shielded circuits. Finally the Creek combines all of this functionality and more. With a separate DC PSU, three stages of RIAA equalisation and a user interface that can be programmed to match the settings for any given cartridge, this is a phono stage for the digital age.

SYSTEM AND MUSIC

To get the full measure of each unit on test, a selection of MM and MC cartridges at varying prices was made: these were Nagaoka's MP-100 high-output MM; a Benz Micro ACE SH high output MC; and

Roksan's lower output Shiraz MC. We used a Roksan Xerxes 20plus deck with Tabriz Z1 tonearm [HFN Dec '11]. Amplification came via a Musical Fidelity M6PRE and M6PRX pre/power combination driving Dali floorstanders. Van Damme cables were used throughout and I took advantage of the preamp's balanced inputs by using balanced cables between preamp and phono stage for the models that could take them.

Review albums included Neil Young's *Harvest* [REP 54 005], chosen for its contrasting hard and soft rock tracks, and Antony And The Johnsons' *I Am A Bird Now* [Rough Trade RTRADLP233] – with particular attention paid to 'Spiralling' for its atmospheric vocals and piano, combined with strong bass.

I also used a Decca pressing of Charles Dutoit conducting the Montréal SO in Respighi's grandiose *Roman Festivals* [SXDLP 7591] which revealed how each phono amp coped with a large and complex soundstage. (Note: SQ ratings reflect the price bracket of each product.)

REVIEWS BY ANDREW SIMPSON
LAB TESTS BY PAUL MILLER

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Clearaudio Nano Phono (£255+)

hi-fi news
EDITOR'S
CHOICE

A quick glance at Clearaudio's product range shows that the company prides itself on using quality materials to house its audio electronics, and the Nano Phono certainly continues in this vein. Its case is formed from a solid CNC-machined aluminium block which makes the Nano feel surprisingly heavy, despite its diminutive size. It's also the cheapest phono stage in Clearaudio's stable, although with embossed logos, chamfered edges and not a screw-head in sight, there's nothing 'entry level' about its look and feel.

Within the Nano's case reside dual mono circuits using surface-mount op-amps, confirmed by separate left and right channel switches for MM/MC selection, input loading and low frequency filtering. Both moving-magnet and moving-coil inputs have variable gain [see Lab Report] which is controlled by the rotary dial on the Nano's top.

As well as the default 47kohm, the Nano also offers loading options of 50, 200, 400ohm and 1kohm for MC cartridges, achieved by inserting supplied resistors into sockets on the Nano's base. If utilised, the resistors may protrude from the Nano's underside but it's possible to carefully bend them flat.

For tonearm cable earthing, Clearaudio includes its own 4mm banana plug. Power is via a supplied 16V AC wall-wart transformer and our review model came with the optional front headphone socket (£15 extra) – although contrary to Clearaudio's claims, plugging in a pair of cans does not automatically mute the RCA outputs.

LION HEARTED

For such a little fellow, sonically the Nano has the heart of a lion and gives its

RIGHT: Seen from the underside, the Nano's MM/MC gain and subsonic filter jumpers are clearly visible. You can just make out small sockets for its optional loading resistors

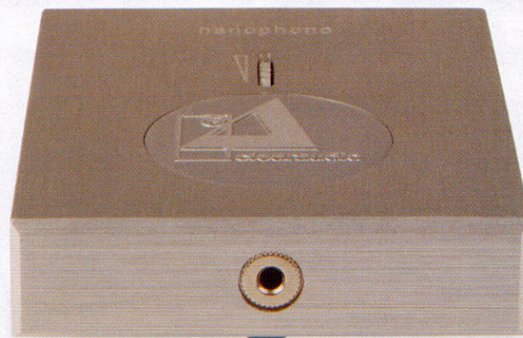
RIGHT: The 'H' version of the Nano includes a headphone socket – the top volume wheel serves all outputs

all in every performance. Initially, I found it underwhelming; however, dialling up the gain seemed to coax it out of its shell, and at close to full gain the Nano delivered a soundstage that was strong and forward sounding. This also brought noticeable improvements across the lower registers, particularly with the Benz cartridge. The bass guitar on the Neil Young album, for example, had increased weight and body on 'Out On The Weekend', although there remained a slightly woolly quality in comparison to the bass clarity that the Lehmann and Creek delivered. Vocals were helped by the Nano's solid midband and the lower sung notes of Antony's performance on 'Spiralling' had convincing power.

Of our three cartridges, the Benz seemed to be the Nano's preferred companion, especially with detail retrieval. A high-output MC, it was configured through the MM setting, which suggested that the Clearaudio is better matched to a high rather than low output cartridge. With the Shiraz, background noise rose and instrument separation on 'Spiralling' became increasingly more clouded as the track reached its complex finale. The Clearaudio delivered consistent results across all musical genres, although the excitement faded slightly with Respighi piece, mainly with the horn sections.

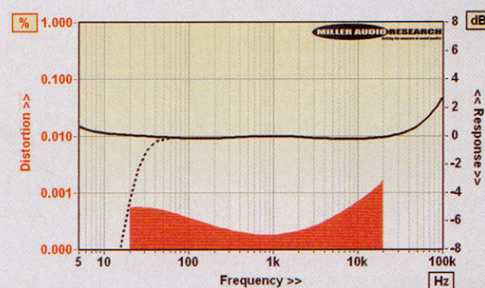
Sound Quality: 74%

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HI-FI NEWS LAB REPORT

Low on cost but very high on performance, Clearaudio's diminutive 'Nano' turns out to be a little cracker. MM/MC gain is variable, according to the position of its knurled (headphone) volume control but ranges from +34dB to +49dB for MM and +54dB to +69dB for MC. The MM/MC input overload margins, relative to 5mV and 500µV, are highest at the lowest gain setting, the Nano tolerating full 175mV/19mV inputs but this obviously falls away as the gain control is advanced. Still, there's plenty of headroom here to accommodate the beefiest of pick-ups. Distortion is the lowest of the group too, falling to just 0.0002% through the midrange [see red infill, Graph below] while its corrected RIAA response is both flat and hugely extended. The +2dB boost at 1Hz might prove a bit tricky in some systems, so the -4.5dB/20Hz roll-off of its optional subsonic filter [selected by jumper – see picture below left] is certainly worth trying. Finally, the Nano offers very low noise with an A-wtd S/N ratio of 87dB (re. 5mV) for MM and 70dB (re. 500µV) for MC. At £250, what's not to like? PM



ABOVE: RIAA-corrected response from 5Hz-100kHz (black, subsonic filter dashed) plus distortion versus frequency (red, 20Hz-20kHz)

Input loading (MM/MC)	47kohm/220pF
Input sensitivity (MM/MC re. 0dBV)	19.7mV / 1.93mV (min. vol)
Input overload (MM/MC)	175mV / 19.1mV (min. vol)
Maximum output (re. 1% THD)	8.7V
A-wtd S/N ratio (re. 5mV/500µV in)	86.7dB / 70.4dB
Frequency response (20Hz-20kHz)	+0.1dB (-4.5dB) to -0.1dB
Distortion (20Hz-20kHz, re. 0dBV)	0.00018-0.0017%
Power consumption	3W
Dimensions (WHD)	80x25x106mm