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• OPINION 12 pages of comment • VINTAGE Classic Rotel 16-bit RCD-855 CD player

• SHOW BLOG Munich's High End • READERS' CLASSIFIEDS Hi-Fi bargains galore



TURNTABLE

Belt-driven turntable with electronic speed control
Made by: ELAC Electroacustic GmbH, Germany
Supplied by: Hi-Fi Network
Telephone: 01285 643088
Web: www.elac.com; www.hifi-network.com
Price (turntable/arm/cartridge): £2150



ELAC Miracord 90

ELAC has revived the Miracord name with a brand-new turntable – and celebratory it may be, but the Miracord 90 Anniversary Turntable does not look to the past Review: **Ken Kessler** Lab: **Paul Miller**

y coincidence, ELAC shares its 90th birthday with Luxman [see p42], and has chosen to mark it with the revival of a long-dormant product line. The Miracord 90 Anniversary Turntable recalls what the brand was known for before speakers became the dominant category, but only oldsters will remember the ELAC turntables that were in production from 1948 until the late '70s.

For its Miracord 90, ELAC wiped the slate clean. The all-new player sells for an attractive £2150 including arm and MM cartridge, but is a victim of recent Sterling/Euro currency fluctuations, having been announced at around £1600. The price includes a choice of finishes, which enhance and personalise one of the prettiest turntables I've seen in ages: you can have a black base with high-gloss white plinth, silver base with gloss black plinth, or a black base with an oiled walnut plinth.

CLEAN SIMPLICITY

ELAC isn't merely paying lip-service to its turntable past. The deck itself is made by ELAC in Kiel, although the arm is subcontracted to an unnamed German firm, while the cartridge was co-designed with and produced by Audio-Technica. So although it displays a striking resemblance to the equally handsome, VPI-made Runwell from Shinola, with clean plinth, rounded corners and a blessed lack of clutter, the Miracord 90 has a look of its own, defined by two almost identically sized black circles symmetrically located in the left and right front corners. The one on the left is the aperture for the motor assembly, while that on the right is the combination on/off switch, 33.3/45rpm speed selector and variable pitch control.

Correct speed is indicated when the lights change colours from green to pink to white, the speed measured optically from the underside of the platter and regulated

RIGHT: ELAC has chosen to drive its substantial 6.2kg alloy platter via a thick rubber belt and low-torque DC motor, the latter mounted within a compliant rubber housing inside the chassis

by a micro-controller circuit. One minor hitch is that you can write a novel in the time it takes this deck to get up to speed. Well, maybe not a novel, but certainly make a cup of tea and a sandwich.

I should mention that our review sample came in the colour combination I preferred: white gloss with black wraparounds at the corners. The contrasts provide a clean, modern look and emphasise the nearsymmetry of the black discs. The 5.5kg MDF plinth rests on four feet made from a highly-elastic silicone material, chosen to provide damping. Because the plinth surrounds only clear the surface by a centimetre or so, the feet are not visible and so it seems to float.

A wide, flat belt drives the 12in platter – a 6.2kg disc of machined aluminium supplied with a felt mat – which rests on a smaller sub-platter topped with four damping supports. The sub-platter sits on a hardened steel spindle rotating on an 8mm 'ruby ball', the spindle located with high-

quality sintered bronze bearing bushings. The motor unit is housed within the plinth and double-decoupled. The outboard 18V power supply connects via an umbilical to the rear though a multi-pin, screw-in Lumberg plug and socket.

CABLE SWAP TEMPTATION

As for the supplied tonearm, this is allnew and fitted with the aforementioned moving-magnet cartridge. The straight arm tube is made of carbon fibre, with adjustable counterweight and thread-andweight bias. I had this up and running in 15 minutes because I used a stylus balance to apply the 1.4g downforce, rather than follow the instruction manual's method of counting the turns on the weight once the arm was balanced.

And here's why I recommend this. At the front of the counterweight are graduations, but, depending on where the weight ends up once the arm is balanced, the unmarked indications are of no use. If





the counterweight had a free-turning disc at the front, it could be lined up to read zero. Now I'm not saying that my senility and/or memory loss are such that I cannot count three-and-a-half turns, but it was too vaque. Suffice it to say, once the arm was balanced, I whipped out the Air Tight stylus

balance and had it set to within a hundredth of a gram in mere seconds.

Experimenters will love the next bit, for while ELAC supplies a fine phono-tophono cable with earthing wire for connection to your phono stage or phono

input, the pair of gold-plated Neutrik RCA phono sockets and gold-plated earthing screw on the back of the deck just beg for cable swapping.

Given its size and weight [p49], the Miracord 90 Anniversary is not awkward to accommodate, but do note, if you use open shelving, that there is no dust cover per se. However, I found a temporary fix - the packaging material includes a clear, rigid, vacuum-formed sheet that protects the deck in shipping which could be used to keep the deck dust-free.

Although the package is priced at a sensible £2150, I did listen to it through Audio Research REF 6 [HFN May '16]/ REF 75SE amplification, EAT E-Glo phono

> stage and Wilson Alexias [HFN Mar '13]. Preferring, however, to audition it in context of its price, I also used the underappreciated PS Audio Sprout [HFN Feb '15] and KEF LS50s [HFN Jul '12] to create

a system with a total price of under £4000, as well as using the wonderful (also underappreciated) Quad II Classic Integrated [HFN Jan '10] with the KEFs.

'I was reminded

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THE ENTERTAINER

Digging out the wonderful Fear by John Cale [Island ILPS9301] - yes, that's ELAC backwards! - I'm not sure which element convinced me most of the sheer joy this

ABOVE: The Miracord 90's 5.5kg MDF chassis is available in three guises - a black base with gloss white plinth, silver base with gloss black plinth, and black base with oiled walnut plinth

deck can impart: the crisp attack of the piano on the title track, the crunchy bass of the reggae-ish 'Barracuda', the chiming at the back of 'Ship Of Fools', or the Doors-v 'Mommama Scuba'. What was common to all was an effect which we are all aware of, but often forget to the detriment of listening to the music.

There's no denying this: the ELAC Miracord 90 Anniversary Turntable, despite its turnkey nature, an MM cartridge, a price that no hi-fi snob would entertain, does exactly that. It entertains. I usually approach review listening with a form of resignation. I know that it's work, that I must listen analytically, and that it's not about amusement or pleasure. But when the hardware prevents me from being pedantic and hypercritical - simply because it sounds so inviting – I consider it a victory, a product worth owning.

Cale's voice is grating, challenging. He is (or so I hear) testy and difficult and acerbic. Placing that personality in front of tunes that range from the funky to the lyrical to the deliciously melodic means extreme contrasts in sound and attitude that must be conveyed convincingly if the meaning of the performance is to be communicated. As many times as I have heard this LP, the Miracord 90 had a certain fluidity and softness that countered the edginess of the album without compromising it.

Reminded of The Doors, I went back to the recent release of the remastered mono version of their eponymous debut [Rhino/Elektra 081227941208]. As there were similarities between Cale's LP, eg, some of the raunchier sounds on 'Break On Through', as well as the nature of Jim Morrison's voice and the dominance of →

90 YEARS YOUNG

Aaah, bliss! More nostalgia! Nearly a half-century ago, back in '68 when I was a budding audiophile in Portland, Maine, USA (and even that small city boasted four hi-fi emporia), I lusted after one of three semi-automatic turntables. The market was dominated by Garrard and BSR, neither of which I fancied, but a trio of German brands formed the defaults: Perpetuum Ebner [see News, p14], Dual and Benjamin Miracord. As of 2017, all are back. 'Benjamin' was the US importer; the rest of the world knew them as ELACs. Like their rivals, Miracords were idlerdriven, but it was almost academic for the three were so similar that my choice was made as much on availability as it was on the influence of a friend's dad, who owned a Dual 1019. But the Miracord was a major contender, and its range included at any given time a half-dozen models. As with Duals and PEs, the decks could be used manually - indeed, I never once used my 1019 with other than its short spindle. The three- or four-speed Miracords differed mainly in construction, arm configuration and motor type. Miracord's first deck appeared in 1948, next year marking another anniversary. Hmmm... let's hope that ELAC's second turntable is called the Miracord 70 Anniversary!



ABOVE: Supplied as a ready-assembled package, the carbon-tubed arm is wired into gold-plated RCA outputs on the rear of the deck. Both downforce and bias are set the 'old-fashioned' way with thread-and-weight and counterweight, respectively

Ray Manzarek's keyboard, this might not seem like much of a departure. But the organ was perfect for showing the clarity and crystalline capabilities of the Miracord 90 on this track and 'Light My Fire'.

Turning to mono, however, allowed me to ignore the spatial concerns, which I had also paid scant attention to with Cale's Fear. Instead, I was wrapped up in the solidity of the central images, but took notice of the scale: here was room-filling mono, rich and fat enough to make you forget two channels for a moment. And it was at this point that I decided to see what would happen fitting a cartridge costing four times the price of the deck.

'RIO' GRAND

My goodness, what a tonearm! It handled the energy and mass of the TechDAS TDC01 [HFN Sep '14], retrieving even more detail in each track. The organ and organ/bass on the opening of 'Alabama Song', the militaristic drumming and the harpsichord-like effects combined to create exactly the surreal state (minus any illegal chemical or herbal enhancements) that The Doors were no doubt hoping to replicate. The flow, the rhythm, the bizarre carnival atmosphere enveloped me... and in mono. no less.

Back to stereo, and one of my favourite test tracks proved to be even more lush and liquid than I recalled. I hadn't played the LP version of Michael Nesmith's epic 'Rio' from the original vinyl [From A Radio Engine To The Photon Wing; Pacific Arts ILPA9486] in some time, and was reminded why digital, and CD in particular is still getting its butt kicked. This one track alone could convert anyone who has not yet succumbed to the vinyl revival.

In fact, it was so much better, so more lifelike and natural, that I had

to dig out the CD just to reassure myself that I wasn't merely playing into the desire to turn back the clock. This time, I did concentrate on the dimensional concerns, during the cocktail party sequence, with appropriate noises and lush vocal backing. The Miracord 90, with either cartridge, and through both systems, simply sounded *gorgeous*.

There's no doubt that the ELAC Miracord 90 Anniversary is much more than a sop to the vinyl revival or a mere case of birthday-based opportunism. Everyone is at it – there are none worse than watch manufacturers for exploiting every damned anniversary that comes along – but ELAC immediately dispelled such cynical commercialism by *not* reissuing an exact replica of the Miracord 50H.

Instead, like Luxman (who did go all out with the aesthetic aides-mémoires), ELAC has delivered something that perfectly suits the standards of 2017. Yes, it reminds you of the company's venerable past, but it also shouts 'contemporary'. I only wish it had arrived a week earlier, as it would have been blast testing it through the Luxman anniversary set-up. (b)

HI-FI NEWS VERDICT

Once past the irresistible looks, superb construction and ease-of-use, you realise the Miracord 90 is sonically something special. Even with its standard cartridge and via my entry-level Sprout/LS50 pairing, the warmth, scale and solidity will prove tantalisingly seductive to listeners who value veracity and lushness. ELAC may have resisted nostalgia in the design, but the sound is blessedly Golden Age. Danke!

Sound Quality: 85%

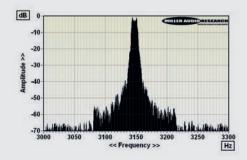


LAB REPORT

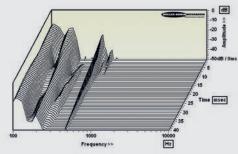
ELAC MIRACORD 90

Too many decks driven by DC motors still suffer from a very lowrate drift (sub-wow), but recent models from Clearaudio [HFN Jun '17] and this Anniversary model from ELAC suggest things are improving. ELAC has deliberately specified a low-torque (low noise) DC motor with a thick belt, so the Miracord 90's start-up time is a sluggish 12+ seconds – quicker if you give the 6.2kg alloy platter a helping finger, of course. Some drift is still apparent from the W&F spectrum [see Graph 1, below] but the overall peak-weighted figure of 0.1% is acceptable for a complete deck/arm/cartridge at this generous price. The ±120Hz flutter sidebands [Graph 1] are also seen as 60Hz and 120Hz components in the rumble spectrum, presumably from the internal electronics. Otherwise ELAC's steel/sintered bronze bearing with its jewel (ruby) thrust pad delivers a reasonably low 68-69dB rumble (DIN-B wtd) whether measured directly through the bearing or via an unmodulated LP groove.

The partnering carbon-tubed tonearm shows a very cleanly-defined resonant spectrum [see waterfall, Graph 2] with a main beam mode at 110Hz accompanied by a twisting mode, or harmonics, at 195Hz and 475Hz, the latter of higher-Q but short-lived. Indeed, the entire structure seems impressively inert with no complex modes or significant high frequency 'hash'. The gimbal bearing enjoys low levels of friction (typically ~15mg in both planes) while betraying little or no play. The alloy cartridge platform inserted into the end of this very light carbon tube increases its effective mass, but 8-9g remains fairly ideal for the relatively compliant suspension of the supplied A-T moving-magnet cartridge. PM



ABOVE: Wow and flutter re. 3150Hz tone at 5cm/sec (plotted ±150Hz, 5Hz per minor division). Absolute 33.3/45rpm speed is user-adjustable by ±5%



ABOVE: Cumulative resonant decay spectrum for Clarify tonearm, illustrating various structural support and tube vibration modes (100Hz-10kHz over 40msec)

HI-FI NEWS SPECIFICATIONS

Turntable speed error at 33.33rpm	33.32rpm (-0.02%)
Time to audible stabilisation	12sec
Peak Wow/Flutter	0.05% / 0.05%
Rumble (silent groove, DIN B wtd)	-68.0dB
Rumble (through bearing, DIN B wtd)	-68.5dB
Hum & Noise (unwtd, rel. to 5cm/sec)	-53.3dB
Power Consumption	2-3W
Dimensions (WHD) / Weight	470x170x360mm / 17kg