

>> Turntable basics

ROUND AND ROUND

In the bright, high-tech glare of the 21st Century, it's hard to believe that long-playing records were the primary source of recorded music until the compact disc tumbled it from its reign — and promised to make both vinyl records and the turntables needed to play them, redundant.

As it turns out, CDs never managed to completely eradicate vinyl. Small record companies, specialist pressing plants and a number of turntable producers continued to keep the art of vinyl alive, driven primarily by audio enthusiasts and music fans.

And now, with CD sales plummeting and downloaded music ruling the roost, vinyl is experiencing a renaissance. New turntables, tonearms and cartridges continue to pop up everywhere, and record companies are reissuing their catalogues on vinyl.

Just what's triggered this resurgence of interest in vinyl falls outside the scope of this article. But anyone who has heard a good LP played back on a decent turntable will agree that there is something magic, something inherently approachable, about music relayed in this way.

And no, I'm not referring to expensive audiophile pressings spun by esoteric record decks — just a nice, clean record on a properly set up turntable.

So, what are the key factors to consider for those seeking to make the plunge into vinyl playback? Not that long ago, sourcing vinyl records would have been the first challenge, but now, most record companies (see, we never stopped calling them that) offer an ever expanding catalogue of vinyl, and new releases are often offered on both record and CD.

But what do you need to play back those records? A turntable, of course. That turntable will typically

consist of a motor driving a platter, a tonearm, and a phono cartridge mounted on the tonearm's headshell.

The motor turns the platter at a consistent speed — 33,3 rpm for 12-inch so-called long-play records (or LPs), and 45 rpm for 7-inch seven singles. The latter are defunct in the modern age, unless you happen to have a stash of them at home from those 1970s garage parties ...

The tonearm allows the cartridge to track the grooves of the record at the optimum angle, and at a specific tracking weight.

The cartridge consists of a stylus (most often a carefully shaped diamond) mounted on a cantilever, which translates the movement of the stylus to

the motor assembly in the cartridge body, thus creating a signal which can be amplified to recreate the sound embedded in the grooves of the record.

The tonearm allows aspects such as the horizontal and vertical tracking angle, the tracking weight and the azimuth to be adjusted. Accurate adjustment of these parameters is vital to ensure the stylus



tracks the groove accurately and thus extracts the full quota of musical information contained in it.

The level of accuracy attained is directly related to the cost of the turntable. Expensive record decks will have motors that consistently spin the platter at exactly the right speed. The tonearm will allow easier and more precise adjustability. And a pricey cartridge will theoretically track the grooves more accurately than a cheaper one.

Because the signal output from a phono cartridge is very low (about 0,5 mV for moving coil, and 2,5 mV for moving magnet cartridges), a turntable can't just be plugged into an amplifier like a CD player, unless the amp has a dedicated phono input. Generally, you'll need a phono pre-amp to step up the signal to line-level standards.

Also vital is to keep both record and cartridge pristinely clean. A carbon fibre brush is good to keep clean records clean, while older records with accumulated grunge might need a wash in a record cleaning machine.

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