Some things are just plain wrong…

Why record replay EQ matters – and why it might well matter to you

by Roy Gregory

There I was the other day, reading a review of an expensive phono-stage, when I came across the words, "I'm increasingly convinced that – unless you have a collection of original early 1950s mono LPs – having different EQ curves is more about *audiophilia nervosa* than it is about real-world vinyl history…" Our intrepid author goes on to opine that, "To see a product like the XXXXXXXXX be dismissed for its absence of Decca curve by someone who has precisely zero records that would benefit from a Decca curve is absurd."

At first I was puzzled. The author in question knows better than this. I know that he knows better than this – because I've demonstrated to him the importance of EQ curves myself. But then I got frustrated, because the two statements also confuse the issue of just what the benefits of switchable EQ are and who might appreciate them. More to the point, it's an issue that matters. At least, it's an issue that matters if you are one of those record collectors who could benefit.

It matters because with the right record the differences can be sonically and musically substantial.

It matters because properly applied, EQ curves can open up a world of exceptional recordings and performances – and they can do it at bargain prices, precisely because those records sound so downright lousy if you play them with the default RIAA EQ curve. ▶▶

So the real question becomes, which records were cut RIAA – and which were not? Or, to flip it, do you actually own any records that weren't cut RIAA?

Depending on your musical tastes and what kind of record buyer you are, you might be surprised by the answer. More importantly, access to switchable EQ might just change the kind of records you buy – and buy you a lot more music for your money.

But if that's the case, where's the controversy? There's a widely repeated claim that **every** record pressed after 1956 was cut using the RIAA EQ curve. In much the same way, the phrase, "Not everything that can be counted counts and not everything that counts can be counted" is widely attributed to Albert Einstein, but simply saying it lots doesn't make it true. In fact, on a purely practical level, the idea that the global record industry adopted a single standard by a given date – because their marketing departments thought it was a good idea – makes less sense the more closely you examine the proposition.

Quite why some people are so invested in this idea is a mystery to me, but their fervour makes the average conspiracy theorist look balanced. They wheel out licensing agreements and accords, quote anecdotal evidence or claim to have spoken to "the people that know." All of which is even more baffling as you don't actually need to rely on historical materials, the vagaries of human nature or long buried memory to discover the truth or otherwise of this particular claim. We have the records. So, all you actually need to do is listen…

But before you do that, let's digress into what replay EQ actually does to the sound you hear. A quick and dirty history… When record production switched to Microgroove LP, it was to achieve longer playing times. For the first time, the new format allowed even the longest symphonic movements to be pressed on a single side and thus played without a break. But the narrower groove meant that it became necessary to reduce the level of low frequencies in order to accommodate them, while

increasing the level of high frequencies produced a cut that was actually traceable by the stylus. None of which is a problem, just as long as you boost the bass and cut the treble back to the proper levels when you replay the disc. The values required are enshrined in the EQ curve and, to start with every record company had its own ideas about just what worked. Which is why, if you look at early pre-amps, they offer a range of phono inputs, identified by record label. Clearly, it was in everybody's interests to unify around a single standard and between 1953 and 1956, a number of major labels agreed to use RCA Victor's New Orthophonic curve, which subsequently became the RIAA (Recording Industry of America Association) standard. However, a number of major UK and European labels were either slow to adopt the new standard, or failed to adopt it at all, while adoption within the RIAA signatory companies was patchy and slower than planned. None of which is particularly surprising. Meanwhile, electronics manufacturers were quick to drop the cost and complexity of switchable EQ and soon RIAA was all that was on offer. However, the upshot of this is that some labels were still producing records cut to their own curves well into the 1970s, while those curves had all but disappeared from view, supplanted for replay purposes by RIAA.

But if a record is cut with one curve and replayed with another, it will introduce a degree of balance and tonal error that would debar a loudspeaker from serious consideration. Each EQ curve also includes a time constant and if that shifts the whole reproduction falls apart. So the suggestion that EQ curves only apply to early mono LPs is not just wrong, it's actively misleading.

The fact that major labels were cutting stereo records that weren't RIAA long after 1956 has a direct impact on how those records are judged. But what really rammed home the significance of this issue was a recent trip to a favourite source of used records.

Have you ever wondered how records come to end up in the bins at charity shops? Normally, they arrive in collections, meaning that if the person who assembled that collection shared your musical tastes, it's your lucky day. If they collected carefully, bought early and really looked after their records, then its jackpot time! That's exactly what happened a few days ago. With a half hour to spare I popped into the Oxfam shop, rooted through the bins and came out 30-minutes later with 11 albums (one of which was a late 50s mono disc) and three box-sets, all in mint condition. Amongst the haul were:

Six DGG first pressings (Karajan/BPO Beethoven and Brahms symphonies, dating from 1962-65 and the Beethoven Triple Concerto with Fournier, Anda and Schneiderhan, Fricsay/RSOB, dating from 1961)

David and Igor Oistrach playing Bach, Beethoven and Vivaldi, also on DGG, dating from 1961 but a much later pressing)

Bach and Vivaldi settings of the Magnificat (on Argo, a New Malden pressing dating from 1977)

Two Menuhin albums (Beethoven Violin Concerto on EMI from 1966 and the Brandenburg Concertos on HMV from 1959)

▶▶ The Solti Die Walküre (on Decca wideband dating from 1965)

The Mehta Turandot (also on Decca, but dating from 1973)

That's a total of 17 records, varying between the excellent and the merely interesting, acquired at less than £2.00 a disc. The only problem being that each and every one of them requires something other than the RIAA EQ curve for proper replay. Both EMI and Decca classical albums used those company's curves well into the 1970s, while there's considerable evidence to suggest that DGG relied on the Teldec curve right up to the point where they stopped LP production in favour of CD. In amongst that list there are some stellar performers and superb performances – but play them with the RIAA EQ curve and you'd never know. Which is one of the reasons why the reputation of Karajan and DGG records in general is so low when it comes to audiophile collectors. The very people who seek out and buy early pressings. Why does that matter? Because, right through the 1960s and 70s, DGG had arguably the greatest single roster of classical performers – a roster that included not just Karajan and Klemperer but the likes of Rostropovich, Benedetti Michelangeli and Martha Argerich, amongst many, many others. Add to that the collected talent then performing for EMI and Decca and any serious classical collector should sit up and take notice. It's not just that you need the correct replay EQ to truly appreciate these performances. Due to their poor reputation, many of these discs – but DGG in particular – are readily available at bargain prices.

Nor does this issue only impact classical music. Early pop and jazz pressings can be affected too. Over the years I have conducted many a public presentation of the record replay EQ phenomenon. Two of my regular demonstration discs are early pressings of Miles Davis/ Kind of Blue (1959) and Bob Dylan/Highway 61 Revisited (1965). Both being on the Columbia label, you might reasonably expect them to be RIAA compliant, but one listen with Columbia's own replay curve demonstrates that they aren't. Does that mean that all pressings of Kind Of Blue need the Columbia curve? Definitely not. Later pressings are, just as demonstrably, RIAA. All of the audiophile re-issues and 180g re-pressings are also RIAA. But if you are going to invest in an early pressing, then the chances are, it will have been cut with the Columbia curve.

Which brings us to the nub of the issue:

If you only play records produced since 1990, you don't need switchable EQ.

If you only play 180g discs or audiophile pressings, you don't need switchable EQ.

If you predominantly play jazz released since the 1960s or pop/rock music released since the 1970s, you probably don't need switchable EQ.

But:

If you collect early, stereo pressings in any genre (but especially classical) or play original mono LPs (jazz, pop or classical) then you'd almost certainly benefit enormously from switchable EQ.

Those demonstrations that I mentioned above normally take place at audio shows or dealer events. To conduct them, I've used phono-stages from Audio Research, Zanden, Graeme Slee, FM Acoustics and CH Precision. There are plenty of others that also offer switchable (or adjustable) EQ as standard or as an option. The fact that this many companies take the issue seriously should also give you pause for thought. What is absurd is the blanket denial that this issue exists. Instead, we should understand it, consider our musical tastes and record collection and, if it might apply to you, find out for yourself whether it actually does. Not everybody needs switchable EQ on their phono-stage, but if you do, then the musical (and financial) benefits are enormous. Once you've heard them, they're hard to ignore…