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FURUTECH DEMAG

At the Munich High End 2006 show, we saw the new Furutech DeMag for the first time eye to eye - a super sleek, high- heeled, shiny grey kind of UFO. It's not completely round but there is a platform protrusion like a landing deck holding two grated metal plates and two nipples for switches. We made an appointment with the US importer's PR man Jonathan Scull for a review. Because the DeMag was so new, Jonathan warned us that it might take some time. We're patient so that was no excuse. And then the package from Japan arrived at our doorstep, unopened by EU customs no less. Here it was, the DeMag, finally, as though it had come a'flying the considerable distance on its own anti-gravity propulsion.

Furutech's accompanying literature states that the DeMag "completely demagnetizes LPs and optical disc media such as CD, CD-R, DVD, MD, Game CD, Photo CD, SACD and DVD Audio. Plus it's an indispensable accessory for keeping interconnect cables, connection and power cords demagnetized to prevent magnetic signal distortion."

The RD-2 demagnetizer can also be used to demagnetize cables. Due to its small size, however, one has to either coil the cable to make it fit on the CD-sized machine or pass it through lengthwise in several demagnetizing passes.

With the DeMag, Furutech attacks those practical drawbacks. Due to the larger usable area, a batch of discs can now be treated at the same time. Prepare a preselected collection of discs in advance and your home concert can proceed without demagging after every disc. Secondly, cables can now be treated in a more fashionable way. Except for ultra exotic stiffness cables, most wires can be coiled into a 35cm diameter hoop without issue. The large working surface also opens up treatment of other device that might get magnetized in an audio system such as CD pucks for instance.

Yet the DeMag is supposed to do more than all the things the RD-2 manages with some applied creativity. Enter the LP. Yes, the DeMag can do its magic on the black vinyl. Along the same line of argument that material CD impurities are partially magnetizable, Furutech states that demagging an LP works too because the dye used to color the vinyl black holds all manner of magnetic materials as does the label.

With the ultra fine magnets and coils of the cartridge just millimeters away from the -- magnetized -- surface of an LP, there must be an audible influence if the magnetizable concept is factual in the first place. As a hi-tech company of considerable resources, Furutech of course proves this with supplied measurements just as they already did for optical discs. Accordingly, we learn that the magnetic flux of a treated LP is lowered, on average, by 45nT, from 625 to about 580. One nT is a nano Tesla or 1/1.000.000.000 of a Tesla. One Tesla is 10.000 Gauss, thus 45nT is pretty minuscule, albeit still audible according to Furutech.

Life is full of things we cannot grasp so 1-2-3, this DeMag effect on LPs should just prove itself -- or not -- by listening as it already has for CDs and other optical media. Our preliminary tests on CDs show that treating five discs at once is very handy. It's like baking the old Dutch treat of *poffertjes*, a lot of tiny pancakes in a pan that you have to flip all at once when one side is done. Only here it takes a mere 10 seconds per side and you might need to use the cotton glove that comes with the Furutech to avoid greasy fingerprints on your discs. Even CD-Rs -- and we use gold MAM-E Pro-Studio -- that are slow-burned and then flash-treated with the Nespa #1 improve. This DeMag has turned out to already be an amazing accessory and we haven't even gotten started.

For our formal review, we tested all three capabilities Furutech advertises for the DeMag - the degaussing/destaticing of CDs and other optical media; the degaussing of cables; and the claim that LPs benefit as well. That degaussing of CDs is efficacious has been reported by many reviewers not only here on 6moons. Degaussing of CDs, in 99.9% of all cases, removes the nasty edginess and smooths the sound. By doing this, details that were first buried in smear now communicate to the ear unhindered. Tests by Furutech show that E22 and E32 errors are measurably lower after demagnetization of a disc. We noticed not only a sound improvement on pressed CDs but also when we degaussed a CD-R prior to burning it but after a Nespa treatment. [A recent conversation with Lloyd Walker who has authored a hand-held version of the DeMag shed light on this designer's ideas as to why demagnetizing CDs works. He claims that it's really destaticing which destresses the juncture between metal and plastic. "Ever notice how warm a CD gets after play?", he asked me. Plastic and metal expand at different rates when heated. It's the resultant material stress which destaticing minimizes and which causes the audible improvements. At least according to Walker - Ed.]

Where the smaller Furutech demagnetizers can only process one CD at a time, the bigger surface of the DeMag makes mass treatments possible. Most of the time, we plan out our listening sessions, not that this is a hard and fast rule. For some reason, we tend to fancy a certain artist, composer or genre that fits the mood of the day or hour. From there, we select some CDs and set them apart. When the time to indulge has arrived, with the DeMag it is easy now to prepare 5 discs at once.

Here we must clarify that we no longer store our CDs in jewel cases. To save space, we use office (Bisley brand) drawer cabinets. We transfer the booklet and CD to a special sleeve with a clear top and cellulose backing. In the drawer, the booklet is followed by the CD in its sleeve, clear side upfront. This stores 3 to 4 CDs in the space of one jewel box. After we started this several years ago, the industry here in Europe has transitioned to more and more paper digipacks that force us to cut them up. As with all things, every advantage has its disadvantage. The biggest advantage however is that we nowadays save a lot of space.

Five discs can be put on the DeMag inside their sleeves. It protects them from dust and accidental scratching. In any environment, the top of the DeMag will collect dust. This might stick to the disc when you remove it to incur scratching the delicate surface of the optical media. Furthermore, the top of the DeMag is very smooth, so smooth in fact that many CDs stick to it and become hard to lift off without serious nails. Using the sleeves makes removal far easier.

Working with the DeMag revealed something else that is quite a concern. Demagnetizing a CD or DVD improves the sound, period. The point being, you better repeat the treatment every time you spin a disc. As stated earlier, the rotation of the disc in a player causes the disc to get magnetized. At the time we tested the Furutech, we also had the opportunity to compare two other "magic" disc enhancers, the Nespa #1 and Nespa Pro by Nanotech. Both treat a CD or DVD permanently and with great results, by applying strong flashes of light as you can read in earlier reviews and in an upcoming coproduction with Srajan. Besides a difference in light power between the #1 and Pro, there is a difference in how the two Nespas hold the disc. The Pro uses a push'n'click release where the #1 uses a magnetic puck. Yes, a magnet holds the CD/DVD down while it is being treated. This method is also used by nearly every manufacturer of top-loading transports.

So here's the $64,000 question. Is it a good thing to use a magnet for holding discs down since we have seen that demagnetizing that same disc improves its sound qualities? Once again, the answer was in the listening. A pair of identical CDs were treated with both Nespas at comparable settings and played. The difference was very clear. The Pro treatment sounded better. Now we DeMag'd the Nespa #1 CD and compared it to the untreated Pro version. You guessed right, the #1 treated and degaussed CD bettered the Nespa Pro-only disc. This non-scientific experiment is good enough for our conscience to henceforth be very careful with letting anything magnetic into the vicinity of a CD/DVD.

Does from this follow that owners of CDPs with magnetic pucks won't benefit from degaussing? We don't know for sure yet but we fear that this might be true.

After this revealing experiment, we concentrated on cables as per Furutech's second claim. In the reviewing business, cables are swapped frequently. From a previous review of a handful of interconnects, we learned that every time you change a cable -- even just its routing -- the perceived sound changes. Every cable is subject to Ma Nature's law which states that where there is an electric current, there's a magnetic field that builds up. Changing the routing of a cable by flexing or completely swapping it alters the magnetic field. Why not demagnetize a cable while in the process of changing it? For reviewers this is a recurring practice - part of the job. For normal users, it is recommended to clean all

electrical connections a few times a year. The home environment is unfortunately filled ever more with acidic gasses and other pollutants that corrode connectors, never mind ordinary oxygen. While you're at it, you might as well treat the entire cable by means of degaussing.

The DeMag provides ample space to process a hoop of hefty cable. We received a factory-fresh set of Harmonic Technology Magic Tweeter and Woofer cables. We used this between the Moscode HR 401 power amplifier and the Von Schweikert VR5-SE on review. In comparison with the Crystal Cable set used before, it was clear the new cables needed time to settle in and open up. Why not give them a Furutech head start? When cables are to be treated on the DeMag, it is advisable to cover its surface as connectors might scratch it up. A strong paper lining like the one used in the DeMag's shipping box worked just fine. After a dose of degaussing, the cables went back in the system and the results were clearly audible. Just like with treated CDs, a veil or haze was lifted and more and finer details were able to make it through to the listener. After this positive result, all other ferrous cables in residence had their time on the grey platter. Results varied but remained noticeable. The cause for variation has to do with how a cable is shielded and terminated. Cable ends by design are the most open parts.

So far, two of three claims from Furutech bore out as advertised. Sound and images clear up on CD and DVD alike just as with cables. To verify the claims for improvements that demagnetizing a vinyl disc brings, we enlisted some outside help. In our city of Rotterdam, one of the most active advocates for analog is no doubt Johan Bezem. He works closely with companies like ClearAudio and Hørning. Johan also is the man behind Okki Nokki. We took the DeMag to his place and played some vinyl to compare the sound before and after degaussing. Johan has a nice collection of old and new vinyl, giving us the opportunity to compare old pressings to newer ones. It turned out that the era of pressing did not matter. All vinyl changed in sound after both sides of the LP were degaussed. On really old, tattered LPs, the clicks and pops encountered by the ClearAudio Goldfinger cartridge changed most in timbre. From a hard click, they softened to still very audible but gentler clicks.

To degauss an LP on the DeMag, you merely put the disc over the center spindle. A raised washer on the spindle's bottom prevents the LP from touching the surface of the DeMag to where LP hovers slightly above the grey platter. Why optical discs make contact and LPs do not is not clear.

When we met Charles van Oosterum of OLS/Kharma at the Denver show -- he lives only 45km from our home in Rotterdam so why not meet at a 7760km distance instead -- we discussed the DeMag and the possibility to try it with his state-of-the-art vinyl system. Imagine a Continuum Caliburn with Cobra arm and AirTight PC-1 cartridge, a Kondo M-1000 preamp and power supply, Kharma MP350 power amps and the Kharma Grand Exquisite loudspeakers as the über cherry on the cake. Budget wise, this setup would be the most extreme in our experience but now we could use it as the ultimate aural lens to magnify any changes caused by demagnetizing an LP. We jumped at the chance with all four of our hands.

Over in Charles' listening room at OLS headquarters, one feels easily dwarfed by his Grand Exquisites. The two 2-meter tall while a mere 40cm wide violin-shaped speakers made a statement just standing there. On the left of the room were the equipment racks, one with the Kondo preamp, a Lamm LP2 phonostage and the separate Kondo power supply adjacent. To the right of this was the Continuum Castellum rack, the oil and air pump at the lowest level followed by the turntable control on the next plateau. Above the following drawer, the Caliburn itself sat on the already legendary magnetic floating shelf. Initially, we used the Lamm LP2 phonostage, to be replaced later by the Kondo. Charles recently acquired a VPI HW-27 Typhoon record cleaning machine which was used to suck the absolutely tiniest speck of dust from the grooves.

The test was conducted as follows. First a record was played as is, then it was cleaned to perfection on the VPI and listened to again. After that, we gave both sides of the record a Furutech DeMag treatment and listened again.

The first record was Dead Can Dance Toward the Within - complex layers of sound, lots of reverb, Lisa Garrard's voice and heavy percussion. That sounded really great. At least so we thought. However, Charles offered to switch to the Kondo's internal phono stage. The difference was large, in particular where detail resolution was concerned, not an entirely fair comparison to the Lamm since the Kondo phono stage alone costs three times as much as the entire LP2. Now we cleaned the record on the VPI. After hitting the pump switch on the Continuum control, the vacuum is released and the oil used for the lubrication of the bearing pumped away. The VPI sucked real hard after the cleaning fluid stage and when looked at, the surface of the vinyl was shinier now than new. Back on the Caliburn, the LP was sucked again, only now to attach it to the platter while fresh oil was applied to the bearing.

It was great fun to see the LP almost become one with the platter. When the AirTight PC-1's needle came down, we all were amazed. The amount of air around instruments and voices was astounding in comparison with what had been extracted before from the same vinyl. The already very palpable and realistic depiction of the soundstage gained extra openness. As is the case with most top-class turntable combinations, clicks and pops from a thoroughly cleaned LP are very rare. Here we could not hear any sound coming from anything in the groove not belonging there. This was listening in optima forma which we indulged and easily lost ourselves in for a while. We could have gone on

listening for hours but it was time for the real purpose of our visit - the Furutech DeMag had to do its claimed trick. Roughly 40 seconds later, the Caliburn sucked the now degaussed LP to its platter.

The first note already was a surprise. It seemed as if analog was even more analog. That little edge on middle and high notes, that glare, was completely gone now. Overall the sound was warmer, more rounded and fuller of color. All the passion and drama were now fully tangible and filling Charles' big room. Where Lisa Garrard's voice had evidenced a certain hardness before as she scaled the high octaves, this now was completely gone, giving her voice a real body of flesh and blood at a proper 37° Celsius.

This stunning result begged for more. From his record collection, Charles picked Kraftwerk's 1978 Mensch-Maschinen (The Man Machines), an old, well played example of techno Krautrock. The opening song "The Robot" -- wir sind die Robotor -- is fully loaded with '70s synthesizer sounds, sequencers, phasers and associated effects from that era. Untreated, the song wasn't terribly exiting or captivating. After a clean-up on the VPI, all manner of extra sounds appeared - little tones on the edges of keystrokes, twinkles, bells. After a Furutech round, the sound became intriguing, fascinating and captivating. No hint of electronic music in the sense of cold and distant remained. This was analog and lifelike now. Kraftwerk had evolved from robots to menschen. The same happened to an old Santana LP. First sibilants were exaggerated, emphasized and thus distracting even after cleaning but became natural after the Furutech had the LP on its top for a few seconds. The 'tricks' and 'sticks' in "Black Magic Woman" lost their artificial extra 's' at the end. From this result, we have to derive that degaussing LPs has the most obvious effects in the 6 to 10kHz band.

These tests in Breda concluded our assignment by proving out Furutech's third claim. Perhaps this was the most fascinating experiment with any tweak we have encountered to date. A relative minute decrease in the magnetic field of an LP brings about such big audible results. It seems incredible but is very true. Does the test with LPs on an absolute top system render this technology unsuitable for normal environments? Not in the least. Even a modest well-balanced system benefits from a DeMag. However, there is the counter balance of cost. The DeMag is not cheap. The two additional uses over CD/DVD treatments add heftily to the price of Furutech's own RD-2. Nonetheless, anyone with a substantial investment in an LP collection should at least try the DeMag. Be forewarned, however. Once you try a DeMag, you'll never want to be without one. It really is anything but subtle what it adds by subtraction.

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