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AUDIO REVIEWS

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AWARDSIGHTING

SEPTEMBER 2005

NANOTEC SYSTEMS NESPA #1



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Review Component Retail: 49800 yen, thus ca. \$500

The optical disc finalizer

From Japan with love. That would be a nice imprint for "James, James Bond", on the box we received through Crystal Cable's Gabi van der Kley. She had just returned from a trip to Bangkok and Tokyo. In Asia, she'd traveled with MA Recordings' Todd Garfinkle and shared a display at the Bangkok Audio/Video show to promote their respective products. It was Todd who gave Gabi a little box containing a mystery device she "just *had* to try".

And now this box has landed on our review desk. Upon opening, we found a black contraption ca. 162.5 x 51 x 128 millimeters in size and weighing 620 grams. On the outside, there's a rocker switch at the right bottom of the top and a white translucent dot on the lower left side of the top. The right side sports a DC power input. Upon opening the lid, the contraption reveals an aluminum plate with two holes in it. The rotated square opening in the center contains a 3cm-diameter CD base. The other hole is a 4cm long, 1cm wide slit that points at the left bottom corner of the device in a diagonal. A tiny red switch depresses when closing the lid to engage whatever process this machine was designed for. Two rubber notches make sure that the lid closes softly. The black box' only giveaway of intended functionality are two silk screens - *Main Power SW* and *NESPA #1*.

In the cardboard package, there's the NESPA #1 power adapter and a magnetic little disk. But what the bleep *is* a NESPA #1?



Luckily, Todd had added a few copies of an English folder. The heading states: "We announce good news for the person who wants the very best quality from CD/DVD. 1,000,000-lux strong flash light makes your CD or DVD more natural."

Aha! The NESPA #1 is a tweak, a gadget, one of those thingmalings audiophiles spend lots of money on to 'improve' items in their system. And this time around, it is once again aimed at our shiny little optical discs. These discs are easy targets. Not many people understand how CDs and DVDs work one bit (pun intended). Confusion sells well as we have seen one too many times in our industry.

The folder continues its explanations. NESPA comes from the French word *n'est-ce pas*. This translates to "isn't it?" Well - *is* it? For manufacturer Nanotec Systems, the NESPA #1 is an optical disc finalizer. The manufacturer states that the NESPA #1 can improve the sound of a CD or DVD dramatically by enhancing a CD permanently.

Hey, this is news. All CD/DVD enhancers so far need repetitive treating of a CD. Think degaussers like the Bedini or Furutech. Never mind, there's also the walk-on-water Intelligent Chip, sold to the public without even a hint of a *plausible* hypothesis for how it supposedly works (we couldn't tell one iota of difference). The NESPA #1 claims differently. Read on. The leaflet reminds us that CDs and DVDs are manufactured by impressing a plastic disc with the pits and lands that form the digital representation of the analog signal. This receiver polycarbonate is injected onto a plate. A stamper will now imprint the soft polycarbonate with the land/pit pattern. In order to keep the stamper free of polycarbonate residue, its surface is regularly lubricated with a very thin layer of oil-like separator. Our disc under construction is subsequently spattered with a very thin metallic film of aluminum or gold to form the reflective layer that bounces back the reading laser beam in a certain pattern. Nanotec Systems goes on telling us that this metallic film often doesn't properly adhere over the full surface of the disc. There are tiny gaps between film and polycarbonate substrate due to a captured residue of the stamper's lubricant. The NESPA #1 can and will close these gaps by means of applied energy in the form of a hi-intensity

broadband light flash.



An analogy comes to mind. What to do when you want a tattoo removed? You have two options. Have another tattoo superimposed or have the name of your ex removed by laser treatment. In the latter case, a strong laser with the right frequency is pointed at the ink below the skin. By applying a flash of laser energy, the ink molecules are split into tiny particles. In fact, the ink molecules *explode*. Once exploded, the remaining particles are now small enough to be picked up by the white blood cells and delivered to the digestive system for excretion. After some time, you will piss or shit out your ex's name in the toilet. How's that for proper decorum?

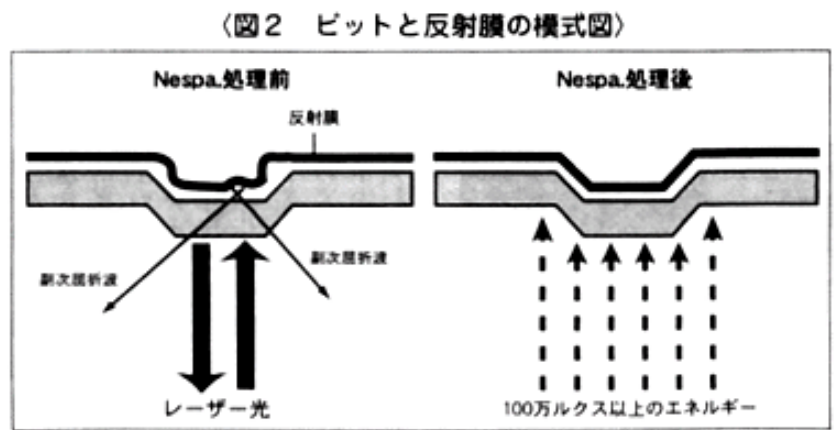
We think -- the literature doesn't give any further clues -- that the 5500K 1,000,000 Lux strong flash performs a similar final "explosion" to the oily residue between the reflective film and the polycarbonate, with the applied heat possibly evaporating the pulverized residue. The results are better-defined pits and lands - 0s and 1s. The error correction of the player has less interpolative guesswork to do and actually gets to read what's on the disc rather than what it thinks is there. And if this theory is accurate, a single or at most double exposure to the flashlight *will* suffice. After all, this isn't a reversible process. If the removal of the residue does occur as claimed, it's permanent alright.

The procedure is simple. Place a CD or DVD inside the black box, secure the disc with the magnetic puck and rock the switch. The disc will start spinning and the light will flash 120 times in a 2-minute period. After that, the disc will stop spinning and voila, the disc is finalized.

The flash applied is rated at 1000mW/sec, has a temperature of 5500K and light intensity of one million Lux. So in fact the disc is exposed to sunlight without destroying it.

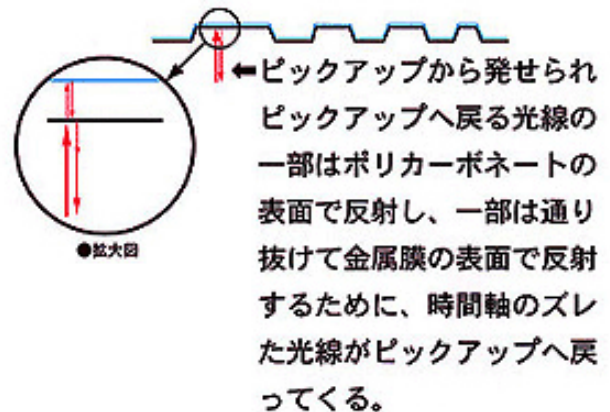
Together with the NESPA #1, we received duplicate copies of MA Recordings' Bangkok show sampler. These are professionally pressed CDs, not merely burned copies. So we attached the power supply to the NESPA #1, put in one of the discs, closed the lid and hit the switch. The disc started to spin while the translucent white indicator on top showed how the disc was being flashed roughly once a second. After about 2 minutes, the strobing stopped as did the spinning of the disc.

Simultaneously to our flash experiments, we were working on a review of the ne-plus-ultra Metronome Kalista. This two-box French wet dream of a CD player has eradicated all fond memories of the Linn CD12 (since removed from the market we hear) and seems very willing to take on the Zanden. It is merciless when it comes to revealing flaws in CDs.



●図-2[CD/DVDの拡大断面図]

- ベース材のポリカーボネートと反射膜が密着せずに入射光が変調され、ノイズを含んだ反射光になっている状態(NESPA処理をすれば[図-1]の理想に近い状態へ)



The untreated Bangkok sampler went in first. Track 1 is Vlatko Stefanovske and Miroslav Tadic's "Jovana Jovanke". This track sounds good, with the Ramirez classical guitar slightly big but very natural, the Sakura guitar perhaps a bit bright. The next test track we select resides on the outside of the disc as track 14 of the sampler. This is the "Adagio" from Handel's violin sonatas. Riccardo Minasi's Amati from the upcoming MA Recording release sounds fabulously realistic, with all the natural edginess and hardness of a bowed string intact. The recording venue is there in all its glorious decay. The accompanying clavichord is simply present. The "Adagio" segues into the "Allegro" and the increased energy permeates into our room. Entrada la treated CD.

Nani yatten' da. Zut alors! What's going on here? The Ramirez has reshaped back to normal proportions and the ambient background of the venue's decay now envelops the player. The Sakura guitar is subtler, too, the attack leading up to the melodramatic theme much more natural. The tiniest sounds -- the brush of a finger on a string, the sliding of the palm of the hand on the guitar's neck, the edge of a thumb's nail following the thumb's flesh -- are now retrieved, indicating we hadn't gotten the Full Monty before.

The Handel tracks now exhibit far greater smoothness. The distance between solo violin and accompanying strings has shrunk. The clavichord is more rotund in sound. The harshness of picked strings has evaporated as though the instrument had aged like a good wine. Just as on the guitar duo recording, the venue is more resolved. In the "Allegro", the cello's fill-in is much more delicate.

Overexposure with this NESPA #1 is a liability. Do not *flash a disc* -- the new audiophile battle cry -- more than twice. You will burn it. Also take care with heat-sensitive rewritable disc as you can melt the writing ink. Better not to use rewritables for HiFi purposes at all.

We weren't done yet. DVD ahoy. Compared to the quality



of our resident audio system, the video system is very simple and middle-of-the-road, however the audio part of it is top notch. Regardless, especially video details surrounded in shadows and dark colors were clearly enhanced, the palette of black tones expanded. The audio accompaniment exhibited the same improvements noted on our dedicated audio-only system. Because DVD audio is always compressed by comparison, it gained in dynamics and details but not as much as CD.

The NESPA #1's flashlight will live long enough to treat 800 discs. After about 100,000 flashes, it might die. By the looks of it, simply changing the Xenon light bulb

should resurrect the NESPA #1 thereafter for a second coming. This unique invention gets a Blue Moon award for tasteful flashing in public! No joke - it really works!

*Dr. Marja Vanderloo &
Dr. Henk 'Longbeard' Boot*



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