

Review of Labtek Oppotubes BDP- 105D by Srajan Ebaen, 12/2015, on :

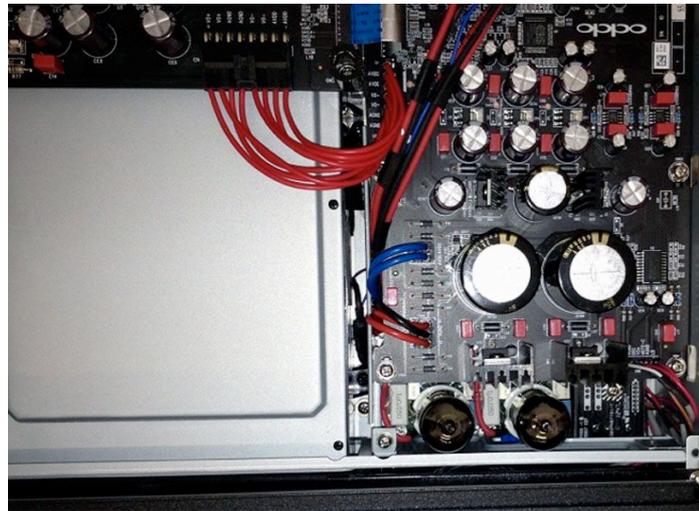


OPPO BDP-105D ELLE EDITION



Death and taxes. What thing in hifi is that certain? This one: that Oppo make the best most popular universal players today. It's why mod men from Dan Wright to Luigi Dall'Antonia to Michel Reverchon of Goldmund use them. And what's not to luv? They're built well. They're reliable. They do stereo and multi-channel. They do all compact physical discs from CD to SACD, DVD and Blueray. They exploit special video DSP including the optional Darbee Visual Presence engine. They double as ESS Sabre DACs via USB, coax and Toslink. They do headfi. Tidal streaming is integrated. As per John Darko, the Apple TV even shakes hands via HDMI. There's a back-lit remote and an owner's manual thicker than a new car's sales contract. And the price is right. Oppo's BDP-105 flagship really is the musketeer of hifi: one for all, all for one. But it ain't got toobs. From Oppo. Yet deal with Oppo distributor Labtek from Italy and ask for their custom modifications. Voilà: glowing bits where there were none before. Plastic surgery for better sound?

Those who boo-poo tubes in D/A converters have likely never heard a Fore Audio DAISy1, Aqua Hifi LaScala II, ModWright Elyse, Nagra HD or LampizatOr Golden Gate. What Labtek's modified BDP-105D addresses—and does so in two flavour options—is universal disc support in the same enclosure. It's for those who still do physical discs; who double-dip into audio and video; who consider eventual membership in Club PCfi; who eye multi-channel music; and who with it all also mean to tart up Oppo's stock output stage. If that's not you, don't diss folks who need multi-tasking kit, not audiophilia's recklessly high box count. Given that our upstairs 2-channel video system runs a BDP-105D multi-region deck, I'd know exactly what Luigi had done to the stock sound. For the full menu of specs and functions, refer to Oppo's extensive owner's manual. Here we only go into what Luigi divulges of his Italian à-la-carte options.



Elle aka Extreme Labtek Limited Edition sports a shiny decal on top; upscale Furutech sockets on its main RCA outputs; two vertical Chinese Sunon MagLev\* fans on the right cheek of its cover; and a lookalike perf pattern on the left cheek without an actual fan behind it. The latter presumably adds cross air flow through the enclosure by acting as intake.

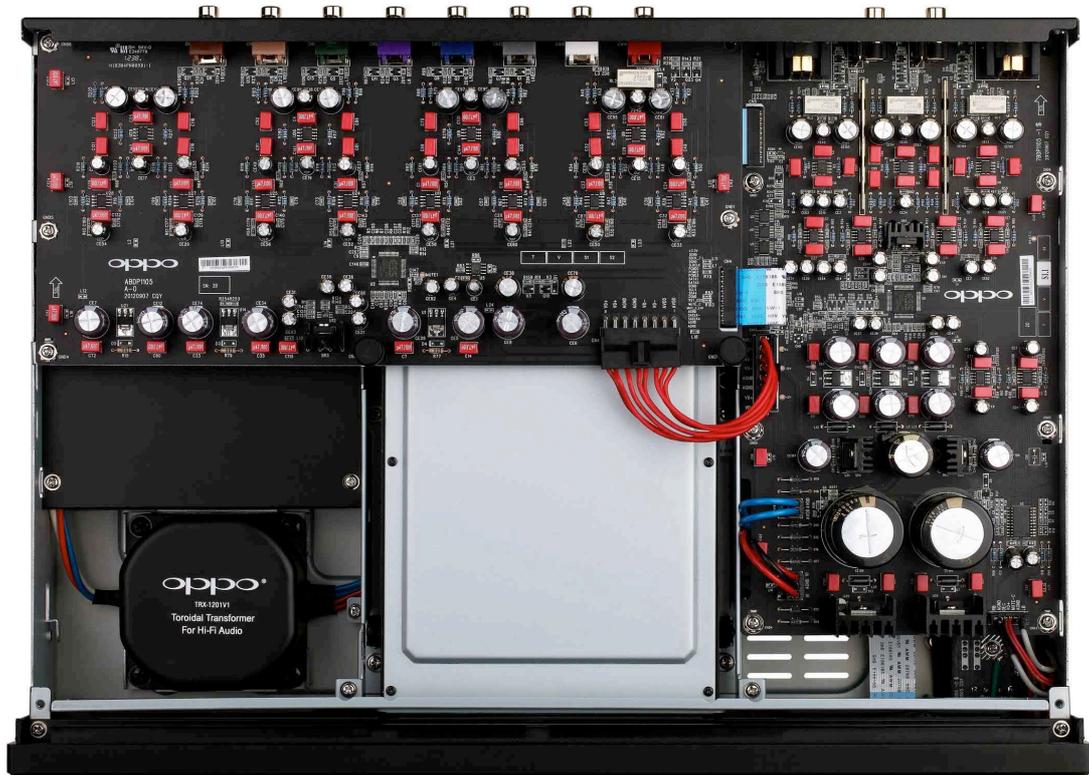
Otherwise nothing external reveals any 'Mod Inside' status, certainly no exposed valves atop deck à la ModWright. Shipped uninstalled were channel-marked pairs of Sovtek 6N1-P and NOS Telefunken E88CC. Popping the hood for a look revealed less than expected. The only area of the stock player that was visibly different occupied the green zone; plus thick flying leads from the upgraded RCA outputs and one other junction to Labtek's tube PCB which tucks beneath the Oppo output stage board. These are crammed quarters to begin with; a mod man's nightmare. Meat fingers alert!

Contrast the Elle mod with the rebuild of ModWright's Truth Mod which I chronicled in a April 2013 review. As the next photo illustrates, it's rather more sprawling and elaborate. Not that I could comment on sonic differences between mods.

If you were to trust any listener to compare something based on 2.5-year old memories, I'd call you far too naïve and gullible for your own good. I'd ask for your email to forward sundry Nigerian fraud offers your way. "Dear, we've got \$9'000'000 in an abandoned bank account we want to give to you. Please provide your account details." Cheers.

Here we see the retrofitted fans installed below the stock board to prevent captive heat; and revised wiring tied off along the chassis edge for the main RCA outputs. Given that Labtek's own board installs mostly out of sight and that I wouldn't attempt to remove Oppo's black PCB... I asked for uninstalled photos with descriptive comments. It didn't help that their website was purely Italiano nor that it didn't show the BDP-105D mods where other mods for Audio Analogue, Behringer, Denon, Jadis, Opera Consonance, Pioneer, Rotel and Sony lived. What's more, Elle remained unlisted. What showed instead were the €2'690 Reference and €3'490 Signature mods. As it happened, I had the latter. Apparently the Signature carries the Elle badge. It is distinctly a she, not a he. Atop Oppo's unaffected 2-year warranty, Labtek add another year for 3 years peace of mind.

Running the Signature's Italian descriptions through Google Translator's spin cycle, I got dual-mono power supplies for the tubes; an anti-magnetic A2 stainless top cover; vibration control of the cover via damping material (translation: one glued-in pad); dual-isolation adjustable feet; a free upgraded Schuko PowerCord; and Furutech FT-903 RCA connectors. Google then bollixed up with "Sbilandciatrice OP section with very high speed; and high-speed feeding in Maggiorat". In plain speak again were increased dynamics and S/N ratio of >100dB. The universal power supply pointed at Oppo's unchanged SMPS. That was nothing I expected to see filed under modifications. Luigi did have to step in after all.



In Bratt Ratner's buddy-cop comedy *Rush Hour* starring Chris Tucker and Jackie Chan, the former's jive-talking character described himself as Blackinese, apparently a black man with some Chinese blood. Considering my loaner's super-stealthy appearance and country of origin—it's also available in silver—had me remember Tucker's hilarious detective James Carter shtick. For this occasion, he merely needed a quick sex change. Meet Christie Tucker aka Jill Carter.

Here we see her very endowed business end, the updated Furutech jacks and the provided fully interchangeable valve pairs for some seasoning to personal taste. Time for Luigi Dall'Antonia to talk us through some of the finer points of his mod. I already knew that his fans were far from inaudible because they briefly fired up when I powered down to standby. The real question was whether they'd come on during play. Or were they pure back-up safety, programmed to start spinning only should heat exceed a safe threshold value?

Luigi: "The reason for applying our mod to just the RCA is easy: cost and working within our warranty agreement. I have a 3-year old signed contract with Henry Feilden, founder of Oppo UK, which stipulates that their warranty on our modified players holds only if we don't change their aesthetics. Tubes sticking out the top would breach the agreement. That however would be required for Labtek-style balanced outputs; plus the fact that Oppo run their RCA and XLR simultaneously. There isn't enough room inside to accommodate six tubes. Also, protruding tubes enforce placement of the player on the top shelf like a turntable when perhaps the ideal place for someone to use my player is on their bottom shelf. Finally, I'd rather have 19 customers happy with a lower price than one out of 20 who insists on balanced outputs and doesn't flinch at a hefty surcharge."

About his fans, "as you will see, the fans spin up at power on, then their noise disappears completely until you power down again. That's because we gradually reduce their speed. The result is two-fold: you don't feel or hear that they're on; and their durability increases exponentially. For example, if the vendor specifies 6'000 hours of continuous operation at max speed, by reducing that speed to 1'000rpm, we increase life expectancy to over 10'000 hours. In fact, we reduce the fan speed by 50%. This extends their useful life to be equal to if not greater than the life of the player itself. Actually, the fans aren't there to keep the player cool. They're just there to ensure a light air exchange which extracts warm air to make for a longer life of all internal parts with zero audible noise."

About his circuit, "the signal section is true dual mono. First comes one op-amp per channel—an OPA627 in the Signature version which is very fast and extremely quiet—to desymmetrize the signal properly without any loss of speed. Now we apply no-feedback voltage gain with one dual triode per channel in parallel single-ended mode. That's no mere buffer stage but a proper amplifier block with about x 20 gain though the exact figure will depend on the valves used. The output voltage is set to 2.1Vrms but remains adjustable with two trimmers. The power supply is fully switch mode. It works between 90-150kHz to ensure that we have no harmonics in the audible range. I've seen our DC/DC converter in several headphone amplifiers. It reiterates its noise-free operation as otherwise it'd be unusable in a headphone amp power supply. That said, it's quite common for switching supplies to exhibit power-on issues with tubes because they see a cold tube filament as a pure short circuit. It's why many designers are rightly discouraged from combining SMPS with valves. They further believe that such power supplies are too slow, compromise dynamics and cause noise. All of this can be true if switching power supplies are implemented improperly. I've worked for more than seven years with a global company who specialize in switching power supplies. Even today I remain in touch with many of their technicians who are hifi fans. They keep me current on developments in the field. In this way I stay abreast to make the very best use of the most up-to-date SMPS technologies." An obvious advantage for Luigi's solution is that it doesn't require something as ModWright's external power supply above to deliver the necessary voltages for the tube section. Honouring his Oppo agreement, single-box appeal remains untouched. Labtek's mods thus pursue extreme integration, not the bolt-on alternative. From an engineering aesthetic, this seems particularly elegant, stealthy and non-obtrusive. On just how shockingly stealthy, "I know it's difficult to believe but the left circuit does it all on just one small board: a dual-mono output stage plus power supplies for each channel. This illustrates our level of advanced integration. Even though everything is so compact, the S/N ratio is better than 100dB."



Presampling Luigi's mod meant upstairs. First inspectors were our customary EnigmAcoustics Mythology 1 monitors, then a review pair of Fostex G1003 GM in gloss black. Magnus Audio's burly class A amp was the designated driver, April Music's Stello preamp the XLR-out volumator. From video fare like the Aussie flapper whodunnits Phryne Fisher to the murderous mayhem of The Vikings attempting to sack Paris (they just might by Season 4); from the inspired HipHop and Rap in Empire to Country in Nashville to pre-adolescent angelic male vocals in Boychoir, the verdict was quick, repetitive and reliable.

The Labtek did more tone intensity, colour pop, bass heft and impact, more dynamics. It did not do bloom or boom. It did not go pudgy or slow. In this hardware context, the dominant contributions were an expander action on timbre, space and dynamics. Things were weightier but not heavy per se. I heard no bloat or that 'pumping up' of images which some valve gear can pursue. One might suspect that Luigi's choice of SMPS connects to how his mod does not sacrifice apparent speed in the process. There was no soft focus either, no subjective raise in noise floor to dim the stage rear and close down ambiance.

Preventing imaginary gains was our customary silver BDP-105. Swapping kept things honest. Resolution losses with video are particularly bad for speech intelligibility. Many directors go too heavy on their soundtrack. Making out dialogue word for word becomes hard work, not easy entertainment. Meaning is interpolated. Between-the-lines subtleties or witticisms are lost. What could be perfectly acceptable softening to trade up elsewhere for pure music quickly upsets the spoken voice; especially when it's enveloped in location din and delivered mumbled and/or rapidly. Whilst the stock player was the thinner and leaner, it wasn't the better enunciated. This spoke highly to Luigi's canny seasoning. His mod harvests known possible tube virtues without stealing from Mary to pay Mona the pudgy Lisa for her famous smile. As promised, his fans were utterly noiseless too. In short, all gain, no loss. To quantify by contrast, I had the ModWright Elyse, Fore Audio DAISy1 and Aqua Hifi LaScala MkII for valve converters without disc drives.



To work the player as a USB DAC, do yourself a favour. Hook it up to a telly once even if you don't plan to watch DVD, ever. That's because the default input is 'Bluray player'; and because there's no hardware input selector. Instead you'll have to select 'USB Audio in' by toggling through the inputs via the red-circled remote button each time you power up. That gets boring quick. So connect a telly, go to the 'Setup Menu', select 'Playback Setup', move right into its option list, then select 'Last Input' under 'Power On Input'. Exit, select USB by remote, power down and disconnect monitor. Next time you power up, it'll come on automatically in USB mode. But don't bury the wand. You still want to hit 'Pure Audio' on the remote circled in white. This not only turns off the display but all internal video circuitry. Think lower power draw and less noise. That selection can't be programmed to memory. You do it for each power-up. Et voilà, c'est ça. Your PC—5K iMac in my case— will recognize the device as 'Oppo USB Audio 2.0'. Select that up to 384kHz and you're off to the cock fights. As one online poster mentioned, you could also program a macro button on another remote with the RS232 code #SIS 7\X0D. That too hits the USB input to bypass toggling through the list. But I did the lazy man's 'last input' thing and it worked swell.

**Valve flavours take #1: versus ModWright Elyse.** Tubes sound like 'x' is always false. There are as many aromas as there are floral scents. Even identifying a tube type or make predicts nothing reliable from one implementation to the next. Think you know 'the' 300B sound? Berning's Siegfried will defy it. If, as the proverb has it, nothing fails like success, then in hifi as elsewhere, nothing succeeds like genuine personal experience. With a tube rectifier, the Elyse digs deeper into classic tube tech than Luigi does with his switch-mode power supplied bottles. How would that divvy out not theoretically but sonorously? Because they were on hand for review, a side-show experiment used extreme noise trackers - Final's \$5'000 flagship 105dB efficient Sonorous X 'phones driven by the hi-gain Bakoon AMP-12R. With the Elyse and no signal, I had background noise. With the Labtek, zero. Impressionante!

With the Albedo Audio Aptica speakers driven by the class A Pass Labs XA30.8, COS Engineering D1 as volume control, the ModWright was overall plumper. It was fatter in the bass, softer on top and bloomier/bigger with its outlines, hence less separated and sorted. Its overall tint was a bit more autumn hued, its performance perspective stronger on the performers, less on the surrounding space. They're here versus you are there. The ModWright was also chewier and chunkier. In trade it was less resolved and astute. Higher warmth meant mild blending. The cooler Labtek drew stricter lines for superior three-dimensional mapping; for more firmly defined recorded ambience. Versus the earlier comparison, the Labtek had become the stock Oppo, the ModWright the Labtek. The fundamental difference? The first round had ended in a no-faults wins for the Labtek. This second round included give 'n' take. Diehard valve fancier wishing for stronger thermionic cues and hues would be drawn to ModWright's stronger play to their bias. Listeners triggered by space, speed and spunk would fancy the Labtek more. But over the stock Oppo, I couldn't imagine anyone not calling out the Labtek as the loud and clear winner. Di effeto!

**Valve flavours take #2: versus Fore Audio DAISy1.** Sabre DACs sound like 'x' is always false. Implementation trumps silicon. With Miss Daisy driving dual-mono ES9018 Sabre32 chips and 6922/E88CC tubes, armchair pundits reviewing on raw specs would call these two decks identical twins by default. But wait, in Europe, this South Korean converter sells for €6'700 with VAT. Just so, it lacks the modified €3'490 Labtek's consummate multi-tasking charms which literally revolve around its universal disc platform. In such duels, something has to—should!—give; especially once you know that the Fore Audio is my top converter and in-house "baby Gryphon" because it mimicked the €20'000 Kalliope in all disciplines, simply at slightly lesser potency.

Whilst actually falling into the same sonic mould, the Labtek didn't play it as intense, dynamic or ultimately unfurled in the depth domain. Combined, those attributes spelled more tacit in-room presence for the Asian; an even stronger 'fully beamed-down' impression to fake up seemingly actual bodies, not the see-through ghostliness all hifi systems must fight against. On stuff with an honest 40dB of recorded dynamic range like Nemanja Radulovic's glorious Carnets de Voyage—classical crossover, what else?—the DAISY1's apparently still lower noise floor created even larger voltage swings. It also retrieved more depth during barely there triple pianissimo passages. Shutting down Oppo's video circuitry benefited particularly the high frequencies. The solo violin's intensely bowed upper registers got less wiry and dry, more bella-voce elastic. But please, don't fret if you can't hear the 'Pure Audio' mode effects. It simply means that your system lacks the necessary resolving power. Top resolution is a sharply honed double-edge sword. What it gives (a bit more realism on good recordings) it often takes away with reduced enjoyment on lesser recordings. The pursuit of resolution über alles quickly gets Quixotic. All that said, it was disconcerting how far the Labtek kept up with Miss Daisy, driving as it were the same make car a small distance behind. The law of diminishing returns definitely punished the driver upfront.



**Valve flavours take #3: versus Aqua Hifi LaScala MkII.** Also from Italy, the Aqua embraces R2R silicon and eschews digital filtering for a tube-enhanced Metrum Hex/Pavane aesthetic. Like the Fore Audio and Labtek machines, its designers worship at the altar of speed. Whatever contributions the tubes make, they aren't allowed to overshadow jump factor and transient vigor as they do in the differently tuned/voiced ModWright. The particular charms of resistor-ladder not Delta-Sigma conversion communicate themselves best over longer-term listening. Just as no/1st-order speaker filters aren't universally preferred or even 'heard', so non-oversampling R2R DACs don't enjoy an undivided advantage. Some people are sensitive to what they do different; other either don't hear it or simply prefer another flavour. The core difference seems to be one of timing. It's a peculiar rhythmic ease. It's not a big stick that hits you over the head in a quickie demo. It's a more subliminal effect that creeps up on you. It might have you listen longer without realizing why at first. The upshot is, if that's what you key into, none of these Sabre-powered converters will do it. In that discipline, they're more uptight and metronomic if you will. But again, not everyone hears it that way.

The important takeaway for would-be Labtek buyers? Luigi Dall'Antonia's top mod with the Telefunken E88CC belongs into this group of dedicated converters but offers so much more. Where on pure sonics the Fore Audio and Aqua Hifi decks are a bit more intense or easeful respectively, their delta of difference is far narrower than the associated pricing would promise. Once the modded Oppo's complete physical disc and streaming support plus headfi factor in as they must, only hobbyist extremists and radicalized snobs would overlook or shortchange the Labtek. Where the Fore Audio is my baby Gryphon, the Labtek would be my upstairs Fore Audio Lite. To scale those steps goes from paying double to more than fivefold. No matter how much one might despise it, that's typical high-end math: death, taxes and all that certainty. Though Sabre haters, Bluray dissenters and bling buyers who need milled-from-solid casings will protest, Labtek's modification turns Oppo's top universal machine into a high-end fully competitive 32/384 USB converter. If that's all you want to do with it. If your hifi system does the multikulti to include video, this not only is the perfect solution to cover all bases with just one deck; it effectively throws in all video functions for free. Viewed from the other end, by about doubling the charge of a stock Oppo, one adds a single-ended tube DAC whose performance would easily cost €3'000 in a separate box from a boutique firm. Clever integration really can pay back big dividends. This one from the land of la dolce vita does. That makes it into a very surprising winner, from a name you've perhaps not heard of before. Consider yourself properly introduced now...

*Srajan Ebaen*