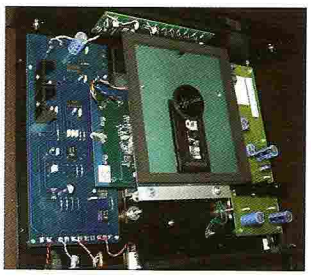
Delectable?

STAN CURTIS EXAMINES A FOUR-BOX CD PLAYER FROM ITALY WITH AN ENVIABLE PRICE/PERFORMANCE RATIO



When the Editor asked me to look at this Lector CD player he pre-empted any dismissive yawn by mentioning that it was a four-box ensemble. Having designed the first two-box and then three-box players, I was immediately intrigued by the 'man after my own heart' concept and eager to learn more.

But there might be a problem. Apparently the distributor was slightly concerned that I didn't like valves. So before I say a word about this product, let me clarify my position. I neither like nor dislike valves, any more than I like nor dislike resistors. To me they are an important electronic component, rather than some magical device with mystical qualities. So I will, as always, be reviewing this product on the basis of how it performs and what comes out of the audio sockets rather than on the basis of the components used.

For those like me who are unaware of the Lector company, I ought to introduce it as an Italian manufacturer which has been making high-end audio products since 1982 and whose speciality is valve/MOSFET hybrid circuitry; an unusual concept but one which makes perfectly good sense in engineering terms.

This CD player actually comprises two assemblies: the *Digidrive TL-2* disc drive with its matching *PSU-DTL* power supply; and the *Digicode 2.24* Digital-to-Analogue Converter (DAC) plus its partnering power supply. Put them all together and you have a four-box CD player. Simples!

The cases are finished in black acrylic with black anodised aluminium and veneered cherrywood sides, with the option of red satin wood or some simply gorgeous polished acrylic ends. The overall effect is of a really deep blackness: very elegant; indeed I'd say very Italian, very Milanese. The power supplies are much smaller than the transport and converter units, and also lack the nice wood sides. But since they're provided with power link cables a metre or so long, the supplies can be positioned well away from the main units.

The transport is a top-loader, the disc held in place with the familiar magnetic puck, and a sliding drawer lid serving as an alternative 'stop' control. The front panel is dominated by a huge blue coloured digital display which could be read from the end of the street. While this was initially a boon to my tired old eyes, it soon became a distraction, but fortunately a rear panel switch allows it to be turned off. The front has a blue power indicator and a sparse row of four control buttons; just 'play', 'stop', 'next' and 'previous'; since operating the lid stops a disc, I'd have welcomed the luxury of a 'pause' button.

Around the back is something quite unusual, a ground lift switch, and also no less than three digital output connectors: the familiar unbalanced 75ohm (S/PDIF) RCA jack (phono); the equally familiar 110ohm AES/EBU XLR connector; and a BNC connector, which I assume is an option because only the BNC connectors will maintain the 75ohm characteristic impedance throughout (unlike an RCA jack). Lector claims that this is a special high-speed connection, although I have no further information. The remote control handset is a plastic affair with very few functions. While some might consider this a rather cheapskate accompaniment to such a costly player, the editor admires its simplicity and lack of pretence!

The *Digicode* has little on the front panel bar a black window, behind which sit a red indicator and two blue indicators, the latter confirming that the digital and the analogue power supplies are on and working. Round the back is another ground lift switch, the three digital input connections, and a choice of audio outputs – either unbalanced via RCA jacks or fully balanced via XLR connectors. The partnering power supply has a mains power switch and separate switches for the analogue and the digital power supplies, and yet another ground lift switch around the back. It's rare to see such a switch on an item of domestic audio equipment these days, never mind on three, so I wonder what sort of grounding problems the manufacturer was expecting. In the event I never experienced any grounding problems, so while no harm was done I do worry that this feature might confuse a non-technical owner. The total of four different power switches perhaps implies a formal powering up routine, but I simply switched on the mains supply units and then the two secondary switches and all was well, allowing me to leave the package to warm up my chilly Victorian listening room.

Construction and technology

The CD transport is built up by Lector itself, rather than bought in, and it does indeed look unique, with the whole assembly built onto two stable aluminium plates separated by brass pillars. A neat arrangement around the motor's rear spindle suppresses unwanted vibrations, and it's obvious that some thought has gone into the design. Furthermore, it looks as though it was constructed in painstaking detail by one of those engineers who normally builds accurate scale

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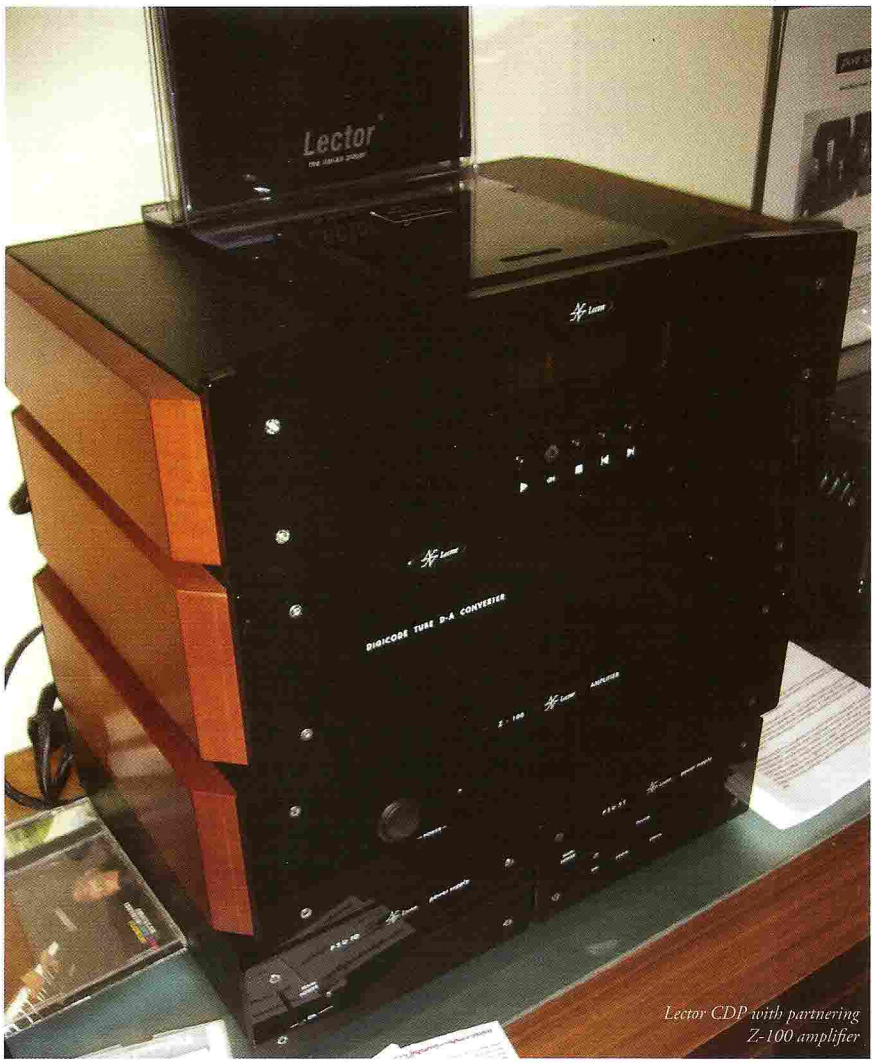
models of GWR *King* class locomotives at home, and that rather makes me think that this company cares about what it does.

The converter box uses four of the familiar Burr-Brown *PCM1704* multi-bit DACs, and each pair was wired in a balanced differential mode feeding a pair of *ECC81* dual triode valves. This arrangement not only reduces common mode distortions, but also permits most of the capacitors to be removed from the signal path – a definite bonus. A lot of thought has clearly gone into the design of these units, and from the manufacturer's literature and website I was able to see that topics like jitter minimisation, digital filtering, power supply isolation, crystal clock stability and so on, have all received a great deal of attention. However, regrettably the poor standard of the Italian to English translation rendered much of the technical detail as meaningless mumbo-jumbo which I would struggle to describe accurately.

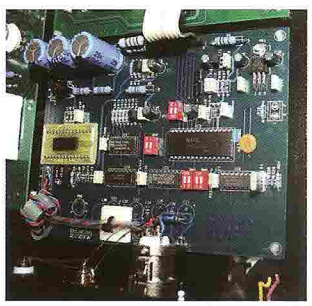
Inside the disc drive unit are a couple of power supply regulator boards; this system seems to have endless supply filtering and stabilisation. Most of the space is taken up by the CD drive itself, which unusually has a large servo board with through-hole components, rather than the more familiar surface mounted devices; designwise this doesn't make a great deal of sense unless the production quantities are very low.

The converter chassis is very neatly laid out, with all the circuitry on three boards. The first board handles the digital inputs via a Crystal receiver chip and feeds the signal to an NPC *SM5843AP1* multi-function digital filter. Incidentally I noticed that all three digital input connectors are wired in parallel to the same circuit, so the rationale behind the BNC connection becomes more mysterious. The digital filter has 8 times oversampling, and outputs in either an 18-bit or a 20-bit format. More importantly it has two filter settings (fast and slow roll-off) which can be selected by a DIP switch on the board. This is quite an old filter chip, first introduced in 1997, but is recognised as being a very good design.

The second board carries the four DAC chips, with quite extensive power supply regulation and filtering. Finally the third large board carries the four ECC81 double triode amplifiers, each of which has a trim-pot so that output levels can be balanced. This board is notable for its star grounding layout, and the four quite massive 6.8uF film capacitors for output coupling. No doubt some enthusiasts will be tempted to source a new set of original NOS Mullard valves; I know I would. Both main components sit on three aluminium feet which have tapped threads, allowing the fitment of spikes and cups to ensure good stability.



Lector CDP with partnering Z-100 amplifier



Listening

The CD player was initially linked to the converter using an Atlas *Mavros* 75ohm S/PDIF cable, which my recent cable measurements had revealed has an almost exact 75ohm characteristic impedance as well as a very wide bandwidth. (Later in the tests I also tried a 110ohm cable and a BNC cable, experiencing little difference.) The converter was then connected to one of my own amplifiers using a pair of Atlas *Asimi* silver conductor cables which I've found very transparent (albeit at an eye-watering price).

I loaded the nearest CD while clearing away some of the accumulated documentation from my last session, and immediately sensed that this was a player whose sound was full of character. What do I mean by that? Well a lot of systems produce a performance which leaves little to criticise yet somehow doesn't engage the emotions, while other systems gather you in even though a few things might be loose around the edges. My papers were promptly dumped onto