

## Abbingdon Music Research CD-77

Price: 8300 Euro

by Roland Kraft, Photos: Rolf Winter

**When the remote weighs a kilo and the drive must be suspended. And why a USB connector is essential for valves? A little story of the Digitalsaurus Rex, who misses a blue tooth.**

Let's say it very slowly: 28 kilograms. Mind you, for a CD player. Included are dimensions, nay extensions, of nearly a half a meter wide and deep, finger thick case material and a remote control, whose housing obviously originated from a tank factory. Clearly, such extreme quantity of material is not even half the rent, heavy cases alone are by far not High End. But for the CD-77 from Abbingdon Music Research the inner values too are on the money, no, that is even understated: This is, so much seems dead certain, one of the most interesting CD players ever built!

Yet, one thing at a time: Abbingdon Music Research is an English venture, where the simple premise is to offer "A Maximum of Musicality and Precision". And AMR seems to be a company to fulfill this all too often formulated claim. Besides a digital electronics specialist and a management professional part of the party is the at least with valve apostles well-known audio designer and "Anglo German" Thorsten Loesch, who boasts a long record of publishing exceptional circuits and who is as well versed in all things digital. Currently the three-man company builds two components, the player/processor CD-77 and an

integrated amplifier called AM-77, presently in the pipeline is also a phono stage called PH-77 and a speaker. Development is handled in the EU and manufacturing in China, which at least partially explains the extreme material quantity. And both components are hybrid designs, where cheerfully and with a refreshing lack of respect most modern digital applications coexist with age-honoured valves; interfaces to computers are here entirely natural and reflect only an entirely logical development, which will be talked about more often in *image hifi* in the future.

A solid foundation is essential for the heavyweight CD-77; besides, one has to be able to reach the manually operated door of the top-loader. Looking below the solid, silky smooth sliding door, the surprised observer encounters a thick, fat and very heavy drive block fitted with a very large cd-well, that really is free floating on four springs and is even illuminated by blue LED's! This really noble part is an AMR design, consisting of the finest ingredients from Philips (Servo system), Sony (Transport) and Motor (Mabuchi), included are a firmly installed spirit level and a magnetically attached CD-"puck".





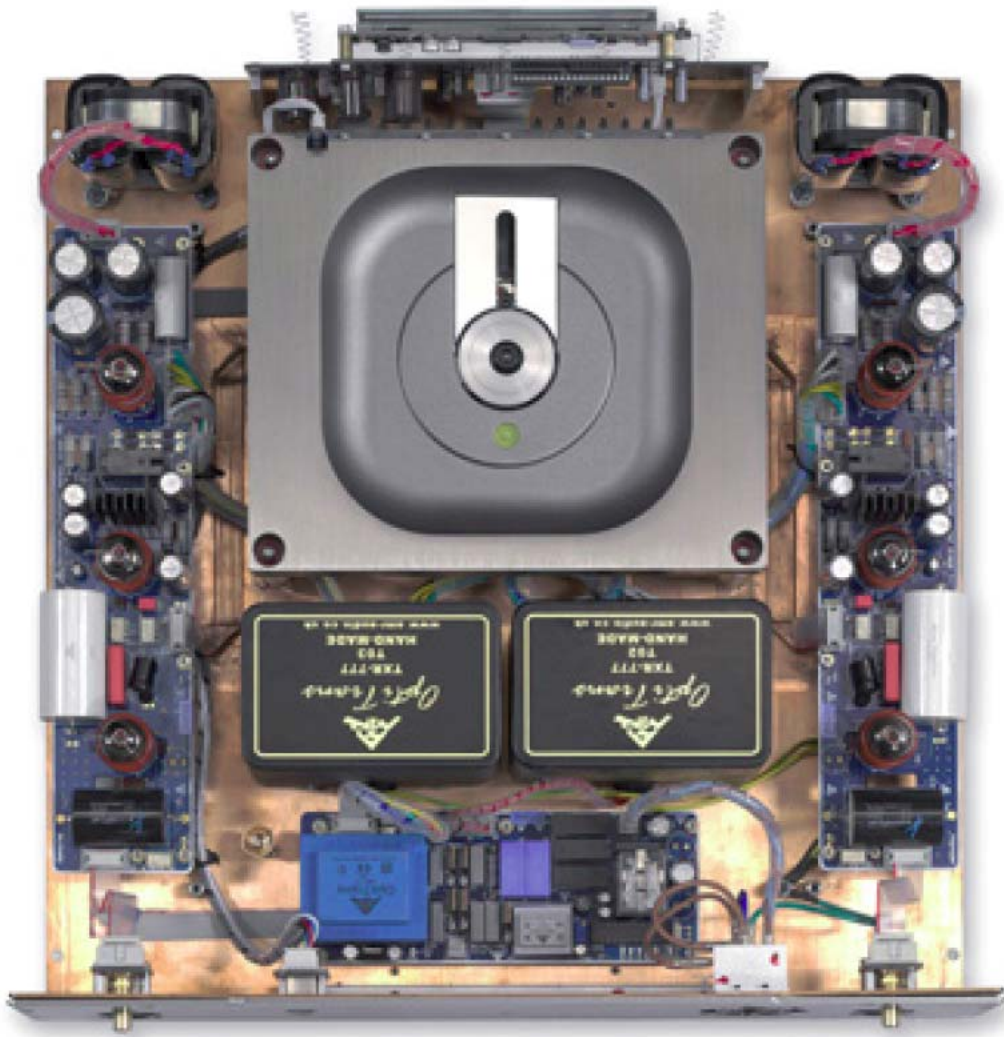
**As standard the player comes with NOS Valves, sitting below holding clamps and fitted with anti-microphonic rubber rings**

Not to mention the fact that the electronics that belong to this transport have been seriously optimised and are provided with separate power supplies by the Brits. Also blue, the large size display faces us, further, each of the five large touch sensors below it are framed by a faint blue light. To further enhance the bluish mood, from out of a total of six "windows" on top of the player, each glows so blue, it warms the cockles of the "Valve-Fan's" heart, because here are six glass tubes to discover, provided with

ventilation through narrow gaps between window and case. All sections inside this player-giant sit in individual modules inside the double walled chassis, that - for shielding's sake - displays a continuous inner "shell" made from copper; the complete digital section directly disappears with very short signal paths under the virtually "free floating" transport block. Directly behind this reside two encapsulated, large transformers and other smaller suppliers of power are seated directly at the rear wall

of this player.

High time, to question the basic concept of this artistic concept: With the CD-77 we have actually two, no, besides the transport and precision clock generator, precisely three components, all seated under the same heavy metal cover. For one, there is a DSP, a complex digital signal processor, which includes amongst others, six different digital filtering options, which can be selected from the remote control no less.



**The components used are from the high-end shelf, such as capacitors from Mundorf.  
The digital board hides below the Transport.**

On the other hand, the CD-77 offers a complete dual mono output stage based around valve technology that, with much investment, calls upon separate power supplies, each(!) fitted with valve rectifiers and which offers balanced outputs. Last but not least there is the D / A converter itself, which external digital sources can address via the USB input. Not to forget the "Management", that is the operating system of the player, which includes peripheral functions

like protection or monitoring; for example the AMR is able to detect an out of tolerance mains voltage or with severe disturbances in the mains electricity to power down for safety's sake. The choice, despite an "Ultra-Fi" approach, not build a separate Transport and converter combo was made because of the jitter problem: Connections and distances between sections that need the same exact time base do not exactly improve the jitter

situation, so says AMR – which is obvious. This is why built into the CD-77 is an extremely precise clock, with its own most elaborately constructed power supply circuit. In fact, the power supply is the topic for this player. Separate transformers for the digital and analogue sections are self-evident, series and parallel voltage regulators using extreme execution are added and for the valve output stages, things went as far as valve rectification and even choke

filtering – an amount of effort up to now probably never seen before in a CD-Player. But whoever takes the remote control in hand understands slowly the kind of drive towards perfection that is at work here: when picked up, a motion sensor turns the lighting for the touch screen handset on! Logically, a screwdriver is needed for replacing the batteries – fine threaded machine screws are called for. As standard, the six valves are fitted with retaining clips and anti-microphonic rubber rings, it also should not be omitted to take note, that with the machine, not only an exhaustive test-cd but also very fine interconnects and mains cables are packed into the gigantic flight-case and that also the mechanical execution is exemplary down to the final screw. For those who look really close at such fine details, allen-head machine screws instead of self tapping sheet metal screws, stainless steel instead of iron, washers under screws. Even I, as an old mechanical engineer, am really impressed. My only point of criticism is minor: the owner's manual in the future also in Bavarian and German, bitte!



**Filter Chokes for the elaborate power supply for the Valve output stage**

Ah yes, the valves: those who worry over wear and tear and the eventual valve change, let them be told, our Mr. Loesch plays it safe and operates his glass far below maximum rating. Meaning one can forget this topic safely, especially as a proper standby circuit conserves lifespan between listening sessions. By the time new valves are needed, we will all be listening to music per implanted WLAN – oh sorry, that was perhaps a little exaggerated. Not exaggerated however is the news that in the CD-77 a converter-oldie from the deepest CD-past is applied, one whom insiders nevertheless grant to be one of the very best converter chips ever made: we are talking about the famous Philips TDA1541, a 16-bit chip that once made its way in many versions through an astonished high-end world. The best known of these is probably the double - crown variant. Today this chip is so rare, numbers are practically extinct, yet deeper insights into the inner workings of this chip enabled AMR to boost still available standard grade chips with helpful additional circuitry called OptiSignal and Opti-ClockLock to such a level that the performance compares more than favourably with the double crown. Teamwork with the DSP – this good old Philips chipset has no onboard Digital Filter – opens up the possibility to provide several tone controls, or more plainly: digital filter options to playful listeners. Of these, the CD-77 offers six different variants, which should practically cover all tastes in

sound – even if I personally preferred one filter over and above all others: said filter is plain and simple, none at all, called Digital Master I and avoids any digital or analogue filtering. The result – absolute impulse fidelity, but combined with a gentle high frequency roll off. The next option that was immortalized in the DSP software is called Digital Master II and adds in the analogue domain, a simple anti-alias filter and thus the compensation of the high frequency roll off, AMR certifies in this case:

<b>The review system</b>	
<b>Pickup:</b>	<b>Shindo, Ortofon SPU Classic, Koetsu Black</b>
<b>Tonearms:</b>	<b>EMT 309 v. A23 (SME-Connection), SME3012</b>
<b>Drive:</b>	<b>Platine Verdier</b>
<b>Stepup:</b>	<b>A23 Tribute T1</b>
<b>Phono Stage:</b>	<b>Shindo Laboratory Model Seven, Einstein Turntable's Choice</b>
<b>Line Stage:</b>	<b>Shindo Laboratory Aurièges-L</b>
<b>Power Amplifier:</b>	<b>Shindo Laboratory Palmer (VT52), Welter EbIII, 300B Standard</b>
<b>CD / SACD Player:</b>	<b>Marantz SA-11S1 Series 2</b>
<b>MusicServer:</b>	<b>Apple iMac</b>
<b>Speaker:</b>	<b>A23 Rondo, Epos ELS3</b>
<b>Cables:</b>	<b>Auditorium 23</b>
<b>Mains Filter / Extension:</b>	<b>HMS Energia Definitiva</b>
<b>Power cord:</b>	<b>HMS</b>
<b>Accessories:</b>	<b>"The Bank" + NF-Damper D172 Carpentry Norbert Gütte, Acoustic System Resonators, Acoustic Solid Justageset</b>

"... the benchmark with which to enjoy music." Optionally two-and four times oversampling comes next on the option list, followed by up-sampling to 96 and 192 kilohertz. The latter especially is not entirely to my sonic taste, but nevertheless is interesting enough to use with perhaps one or other discs to "enhance" the musical performance – oh well.

Deciding to me in the end seems the teamwork of hyper-modern DSP with the Philips converter as well as the extremely sophisticated support-ing circuitry plus – naturally zero negative feedback – valve output stage. The bottom line, a concept like no other realised to date. Yet this is still not enough: with its USB interface, the CD-77 offers itself as a D/A Converter for connection to a PC,



**All tubes operate well below maximum limits, long lifespan guaranteed**

thus AMR stretches one or two feet into the direction of the near future and hence distinguishes itself nowadays as still a sensible acquisition. My personal view: CD-Players or Converters without suitable interfaces are no longer suited to the times, sorry about that... For me the CD-77 especially served as an excellent partner for an iMac...”, on which by now – of course, in full resolution - around 100 CDs are on the hard drive, tendency growing. That the AMR offers only a USB Input and intentionally no S/PDIF interface is present, is with good reason, as these Brits certify the S/PDIF connection clearly offers poorer sound quality, as the clock must be taken from the source, which is not the case with USB, being connected to the highly precise internal clock of the player.



**The heavy Transport Block floats on four of these springs**

Yet here is a bit of criticism due: For reasons more diverse connection compatibility the AMR would have looked good with an RCA or Toslink input and would have finally elevated this marvellous machine to perfection. To save the digital output is on the other hand obvious, especially for those that are convinced of the superiority of their converter technology. On my wish list for the future you would find however a digital input on Bluetooth basis. And such has been seen here and there with some high-end converters.

Okay, how does this machine start-up? The comeback from standby is confirmed by the player starting an approximate 40 second countdown during which time the mysterious optimization circuits do their job and – among others – ramp up the power for the valves; digital sections stay powered at operating temperature anyway.

Then we proceed vehemently to the matter, which should be understood quite literally; totally besides the very clearly understandable sound characteristics of the different filters, the CD-77 is doubtless categorised in the “Monster”- species, whose authority will not be in doubt after the first tone. Yet the muscle- bound Brit does not proceed with a crowbar through the musical china shop, delicacy and vivacity and a good portion of detail obsession are virtually built-in and combine harmoniously with substance and naturalness. That one zaps initially wildly through the filters – this works during playback! -, is certainly normal

and eases in my case the decision for the somehow “purer” and unadulterated TDA1541 working “naked”; also and especially up-sampling seemed artificial and hifi-ish exaggerated to me. One can hear this wonderfully for example on Renée Flemings’ *Homage, The Age Of The Diva* (Decca 475 8069), one of my favourite discs, which however only really works if the player does not pile on artificial highlights nor beautifies too soft-romantic, a difficult tightrope to walk, at which the hefty AMR-slab succeeds with a sleepwalker like steadiness. The ability to retain during all this always the spectral purity of a tone and not to break it up into a pattern of fine brittle fractures also seems to go on the account of Digital Master I...

At the lower end of the sonic spectrum too, the CD-77 shows itself coherent: he is "big" in the bass, but not too mighty, not too warm, but also not cold-synthetic to the border of brittleness; he has lots of inner fire, builds up a firm, yet also not gray-undifferentiated, yes even “woody”, foundation. Forgive me this clumsy



**Together with a Computer you have a really good sounding server system**


narrative, which only means to say that here is not just simple thumb-sized “Digital-Bass”, but that something much more differentiated and believable is formed. In-between, this “battleship” sounds in love with detail, yet never excessively analytical, with a very, very tiny affable-warm inclination, at least which is how I get it. That is of course again Master I and a dash of valves, the bottom line is a tonal balance that is unbelievably good. The CD-77 likewise completes the great high-fidelity rest – yes, yes, spaciousness, dynamic and the usual suspects – playing at a level far higher than justified by its price-class and with that, at a standard where I have absolutely nothing to criticize, where I simply relax and lean back.

Oh yes, pretty funny that one and the same album... via the USB-Input sounds at least not one iota worse than direct via the player’s own drive. The potential of teamwork with a computer makes the CD-77 only more valuable!

Conclusion: Not simply just

image x-tract	
<b>What we liked:</b>	Built like a combination of palace and fortress, living rooms with full mod-cons.
<b>What's missing:</b>	A standard digital input.
<b>What surprised us:</b>	That "old" Chip!
<b>What to do:</b>	Use as a multi-talent – even with a PC!

another High-End player, but *the* digital machine. From now on, the yardstick rests higher. ●

image infos	
	
AMR CD-Player CD-77	
Formats:	CD, CD-R, CD-RW
Inputs:	1 x USB
Outputs:	RCA (unbalanced) XLR (balanced)
Output impedance:	<150 Ω
Features:	top loader with switchable digital Filters, Tube output stage, USB socket; remote controlled
Finish:	Champagne or Titanium
Tubes:	2 x ECC81/12AT7 2 x 5687/6900 2 x 6CA4
Power consumption:	90 W (standby 45 W)
Dimensions (W / H / D):	46/16/47 cm
Weight:	28 kg
Warranty:	3 years
Price:	8300 Euro
Image contact	
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