

AMR CD-77 Valve CD Processor

‘Vinyl Emotion’

Unofficial English Translation of original AudioTechnique review by Lee338



Today, we are sharing with our readers a review of the AMR CD-77 Compact Disk Processor. The full title of the company name is Abbingdon Music Research (AMR). They are headquartered in London, UK. Presently, there are two product lines from the AMR stable.

The first range is the Reference Class or ‘77’ components which is comprised of AM-77 Amplifier (Pre Valve/Power in Solid-State), CD-77 Valve CD Processor, LS-77 Professional Monitor made from aircraft-grade aluminium with an isoplannar tweeter and the PH-77 Phono Equaliser. The Phono Equaliser features an unusually large number of equalisation curves.

The second range is the Premier Class or ‘777’ components which is comprised of the AM-777 Pre-Main Amplifier and the CD-777 Compact Disk Processor.

Further, AMR also manufactures Gold-Plated Fuse accessories which rounds off the company’s comprehensive product range.

STYLE, BUILD, TITANIUM CHASSIS

The review component today is the CD-77 Compact Disk Processor which looks and feels thoroughly designed and well-executed. Weighing in at 28kg, this is one heftily constructed machine. I needed to draw a deep breath before I could lift it and place it on my rack. The reason behind this weight is the heavy aluminium construction which is very reassuring. The front, top and side panels are all drawn from CNC machining, milled from pure billets of solid aluminium.

AMR's philosophy is one of no compromise. The titanium colour is modern and is the first suggestion that advanced technology lies beneath. There is a large acrylic front panel that resembles a pair of dark shades behind which the LCD is located. Even the front buttons are touch-sensitive. The overall look and feel is undoubtedly one of serious technology at work. The CD-77 is a top-loading device. Slide back the door and feel the Teutonic action. Once open, you see the solidly constructed CD well from the same high-grade aluminium as the chassis. The CD well even has a built-in spirit level to ensure correct levelling of this machine; proper setup is the first step along the road of good playback.

Once the CD is placed into the well, you feel the suspension of the CD well. It would seem that the whole CD well including the transport is fully suspended to eliminate external vibrations, thereby maximising the performance of the laser head and resulting disk reading performance. In the CD well are 5 LEDs that emit a blue light to further improve playback quality. The CD puck is a magnetic clamp mechanism to ensure the CD is held firmly in place to avoid unwanted vibrations.

Once the CD door is been closed, you are then drawn to 3 acrylic windows to each side on the left and right of the top chassis. By peering into each of these acrylic windows, you see a valve beneath each of the windows. By following the signal cabling, you see blue LED lights bath the inside of the CD chassis with a soft blue glow. This is similar to Chord components which are also from England. I guess the blue lights help to make the sound quality just that little bit better.

Next, the CD-77 remote control deserves a special mention. Anyone who is able to see the remote control in the flesh will get the same feeling as I did: that this company is sincere and true. It designs and builds products from the heart – as indicated by the extremes to which they go. The remote control is hewn from solid aluminium, not too heavy and not too light, with a nice solid feel about it when it is held in the palm of the hand. Holding the remote control, one gets a good sense of the overall high build quality of AMR products. The remote control is able to not only control the CD-77, but also the AMR AM-77 Pre-Main Amplifier. The full range of operations such as volume control, selection of inputs for controlling the AM-77 and all functions such as track access and track selection for the CD-77 are to hand via this one remote control. Most of the buttons are of the touch-sensitive type.

Upon picking up the remote control, from the slightest of touches a blue backlight automatically comes on; activated via an internal motion sensor. I must also mention a special button found only on the AMR CD-77 and that is the 'kHz' button. This is for the selection of 6 different Sampling modes that are available with this machine.

At the rear of the CD-77, there are 'RCA' and 'XLR' outputs. (2+ve and 3-ve design). There is the standard IEC connector and mains power switch. There is also a USB 'b' connector for the connection of a USB cable to a computer for the playback of computer audio through the CD-77 which is presently the 'hot' new thing in audio playback.

A STURDY AND DURABLE VALVE CD PLAYER

Having discussed the high quality of the exterior and interior, we now move onto the valves used in the CD-77. We previously outlined 3 valves per channel in each of the left and right acrylic windows. The valves used are hand-selected and are all NOS (New Old Stock valves).

Rectification is carried out by an EZ80/6V4 valve. Output buffering is performed by a 5687/6900 valve. Amplification is by an ECC81/12AT7 valve. Each valve has its own 'O' ring dampener to address microphonics. Each time upon powering up from standby, there is a 45 second countdown. This is the protection circuitry that ensures the valves inside the machine are gently powered on rather than fully, straight away. This really goes to show how well and thoroughly AMR has designed its products.

Any valve user is likely to ask whether the use of so many valves is likely to raise any long-term reliability issues. First, whenever the CD-77 is powered on, there is a 45 second countdown to ensure the valves are gently powered on so that they are slowly warmed-up. Second, this process also filters the incoming mains electricity. This company certainly pays an obsessive level of attention to the smallest details. Also, they made sure that every valve section is fed only by the best quality of circuitry and components. During the testing period, we ran this machine for 12 hour periods and it did not flinch or exhibit any unusual issues whatsoever. The CD-77 is ultimately a valve player and even though the life of these valves is exceptionally long, I don't suggest leaving them on permanently, simply to ensure maximum valve life. I recommend that you leave it in Standby. Whenever the CD-77 is powered on, it quickly reaches optimal operation within approximate 10 minutes of powering on.

MEETING THE AMR PRINCIPALS

I must inform our readers that I took the opportunity to meet with the senior people behind the AMR CD-77 at the recent Guangzhou Audio Visual Fair. We spoke about the CD-77 and

their other products. They explained to me the CD-77's special characteristics/features. One aspect in particular is the Philips TDA1541A Multibit chipset which is at the heart of this machine and dates back to a time when Philips and Sony were focused upon extracting the ultimate performance from CD playback to bring it level with vinyl. Hence, AMR chose to use the TDA1541A regardless of cost or difficulty in sourcing; compromise is not a word that is found in the vocabulary of the people from this company.

This Multibit DAC is in AMR's words, the ultimate in CD playback and is *very* close to vinyl – this DAC was constructed with little regard for cost hence, much of the peripheral duties are externally implemented/located rather than built-in like most DACs of today. This means additional parts count and higher cost. It came as no surprise that once CD became the established medium, the TDA1541A was phased out. Subsequent DACs no longer being Multibit, saw all and sundry duties placed onboard as a reflection of the drive to cut costs.

The aim of this story is that AMR's approach is to bring CD playback back to analogue music reproduction which is as close to vinyl playback as possible. The company felt they could only properly achieve by using the TDA1541A. To the people at AMR, the TDA1541A was the only way to go. This DAC is only the start of the 'vinyl like' playback chain as the rest of the circuit design has a similar level of attention to 'analogue' CD playback. AMR informed us that they were only content when the CD-77 performed close to vinyl which is the same conclusion that your writer has come to.

Is vinyl playback definitely better CD playback? My answer is not necessarily because to ensure that vinyl playback is at its best, able to enchant the listener, it is hardly plain sailing. There are numerous issues to contend with such as correct cartridge setup, turntable levelling and matching with the phono stage: hence, such a blanket statement is not quite valid.

Therefore, if a CD player existed that could closely match good vinyl playback, with a less complicated setup process than is CD, such a machine should be at the very top of every audiophile's wishlist.

With regards to the circuit design, is this a single-ended or a balanced circuit machine? Well, the circuit design of the CD-77 is again slightly different, as it is single-ended throughout yet it still sports RCA and XLR outputs. From our listening tests, we can happily report both came out sounding just as good as the other. Hence, the choice lies with the user's preference.

THE SIX SAMPLING OPTIONS

Of the CD-77, there is also one further additional feature: six different sampling options to suit every taste and every type of recording. Sampling is performed via the remote control

at the press of a button, in real-time. Seated in your listening position, sit back, relax and just press the button...

The following is AMR's outline of what and how the various modes effected playback during our listening tests.

1. Digital Master I – with no Sampling, the musical message is free from digital artefacts. The music is smooth and laidback.
2. Digital Master II - this mode is also without Sampling, with a special analogue filter. The sound is very accurate with beautiful music reproduction.
3. OverSampling 2x - this mode engages the Digital Filter with an oversampling factor of 2. The sound has a little bit more detail.
4. OverSampling 4x - this mode engages the Digital Filter with an oversampling factor of 4. There is a slightly artificial presentation to the music. This mode accentuated the smallest details/nuances in the music and was best suited to older recordings.
5. UpSampling 96kHz - this mode engages the Upsampler with a Sampling frequency of 96kHz, resulting in a very clear and well-defined sound. The musical presentation and resolution of this mode is most reminiscent of very high-end, expensive CD players.
6. UpSampling 192kHz - this mode engages the Upsampler with a sampling frequency of 192kHz. The musical presentation is very clearly presented with a well-defined soundstage. The overall feeling is that the music is a bit closer to the listener.

After trying all the different sampling options, I settled on Digital Master II for the duration of the CD-77 review. Digital Master II gave me the musical satisfaction. This mode is able to produce the same nerve tingling excitement that I associate with vinyl playback. However, with some audiophile quality disks, I preferred Upsampling at 192kHz. This sampling mode gave me the most enjoyment from well-recorded disks. For the majority of disks, Digital Mastering II to me sounded closest to vinyl.

CDs FOR AUDITIONING

Recently I came across the following disks which I used during the auditioning of the CD-77:

Nicola Benedetti (Fantasie DGG 476 3399) – this is a violin recording. Why is this disk able to test the analytical ability of any player? Because this CD was recorded over a 3-year period from 2005-2008 at a number of different venues. A good CD player can truly whisk the listener the venue by recreating the atmosphere and sonic traits of each and every different recording location. The CD-77 had the ability to set out each venue in the correct manner

with ease. Miss Benedetti plays one track of the famous pianist Petrus Guarneri (1751) on Track 7 vocalise Rachmaniov with ease. Sounding sweet, Guarneri has never been reproduced with as much finesse and aplomb. Each note exuded emotion and feeling leaving me really moved.

On the other side of the Water - This Hong Kong produced disk was recorded in a Sai Kung church using single track recording. This Chinese singer dates back to the 1940s, a golden era in Shanghai. This recording was mixed by Ms Chow and Mr Wu. Recorded in a church, the notes have exceptional decay and warmth about them. Through the CD-77, the length and breadth of the church was easily conveyed in an effortless manner. You can also hear the harmonics of each piano key. When it comes to the human voice, Ms Chow has used her artistry to produce this disk. Only the best CD players can create the open and room filling sound stage. Usually, upper frequencies become very difficult to bear as they are hard and etched. Not with the CD-77, it has none of these undesirable traits whatsoever. It only shows the effortless nature of the recording and communicates the ebb and flow of music just as one would expect with vinyl playback.

Esoteric has just issued 4 old re-mastered hybrid SACDs. My favourite disk is Fistoulari Conducting the Concertgebouw Orchestra of Amsterdam. Swan Lake recording – worth mentioning is Gordon Parry with Kenneth Wilkinson both of whom are well-known to audiophiles. Using the AMR CD-77, large orchestral pieces such as this are conveyed with the full gamut of emotion and feeling that simply takes the listener to the original recording. The CD-77 did not set out an artificially large or broad soundstage. It just faithfully recreated the whole recording. This is probably because of the superlative build quality of the CD-77. The ability of this machine to recreate the layering within the music defies belief. This disk also demonstrated the low frequencies of the CD-77; clean, powerful and accurate, not the artificially overblown, chest-thumping bass that is characteristic of most other CD players.

EVEN PLAYS COMPUTER AUDIO

Earlier, we mentioned that the AMR CD-77 has a USB input. Upon investigating further, the CD-77 is able to accept computer music files to suit every listener. Via a computer as transport, the CD-77 automatically detects the computer and you are able to stream music files effortlessly. During the listening process, I borrowed a Reference Recordings: Exotic Dances from the Opera on HRx (high-resolution music file). I then copied this file onto a Mini Mac and then used iTunes in the standard setup to stream the music file into the CD-77. From the initial listening tests with iTunes in this setup, I found the quality of the music to be quite good.

Upon streaming high-quality music files in their native high-quality format, the quality of music from the CD-77 went up another level. Therefore, for owners of the CD-77, rest assured that you will be able to keep pace with future advancements in computer audio.

CONCLUSION

Given all the impressive features of the CD-77 and the meticulous attention to detail, AMR is a sincere and professional company. With the focus to the highest parts quality such as the use of the TDA1541A DAC, the CD-77 has truly delivered an ability to replay CD with a vinyl like ability.

The sound quality was remarkably close to well-executed vinyl playback. This shows the dedication and professionalism of the company's designers; their approach to plough their own furrow and to avoid following the examples of others is commended.

By using past, classic technology such as quality valves, they have endowed their machine with none of the 'digital edge' or 'glare' found in most CD players. The strong valve character of their machine is well presented with a full sonic picture but none of the usual loss in detail or resolution.

Lastly, the USB input feature really allows this machine to stay with and to reap the full benefits of computer audio as it gradually develops over the coming years.

My strong and honest recommendation is fully behind this machine.

Specifications

Output voltage (Digital Full Scale) :	>2V
Output Impedance:	< 100ohm
Frequency Response:	20Hz to 20 kHz +0.0, -0.5dB
Signal-to-noise ratio 'A' Weighted:	> 100 dB
Total Harmonic Dist. + Noise (THD +N):	<0.3%
Dimensions:	460mm W by 160mm H by 470mm D
Weight:	CD Processor: 62lbs / 28kg