

Test! DLS CD One/Amplifier One/M66

# SVENSK VÄRME

With M66 and the company's first Hi-Fi electronics, Swedish DLS is aiming to crack the tough "upper middle class", or gain a foothold to the high end world.

Text Jonas Bryngelsson Listening-in Magnus Fredholm Images DLS Svenska AB, H&M Measurements H&M

Those of you who have been reading Hifi & Musik on a regular basis have known for some time that DLS now produces Hi-Fi electronics. We have already showcased CD One and Amplifier One together with the M66 speakers at last year's CES trade show as well as at the Arken 2008 trade show.

DLS has been satisfying the Russian market, one of their biggest, for some time now, and electronics in particular have started to become available in Sweden too. Just before Christmas, Hifi & Musik was able to obtain a complete system for testing. From the very beginning - we wrote in our diary in 1980 - DLS developed and sold a unique police radio without crystals, but pretty soon the car stereo, in the beginning just the speakers, became our principal business, with the company's prominent figurehead Dawid Koniarski being responsible for design and development in Sweden with manufacturing outsourced to Taiwan. For a long period DLS sold the English car stereo power amplifier, designed and built by Gordon Taylor and his Genesis in England, but since the end of the 1990s the company has been developing and manufacturing its own power amplifier.

The step to home Hi-Fi may seem a natural one with speakers being the obvious starting point as it is here the company has the most experience. They have been working intimately with speaker designer Mats Andersén (including QLN and QRS) on their home Hi-Fi initiative, someone who has also been involved in the development of Hi-Fi electronics, together with Hans Hidstam, responsible for DLS's Hi-Fi project.

This is the playing field for DLS as it begins its quest towards a complete audio chain in the home. The heart of the system, Amplifier One, has the same basic construction as Bladelius Tyr,

which we have tested several times at Hifi & Musik. The Amp unit is based on Tyr, but it is not 100% the same. Many critical components have been replaced and improved both internally and externally, which includes a 30 percent larger transformer (850 watt). One of the more expensive upgrades includes the volume and function dials that are mounted on ball bearings for maximum stability and feel, and apparently you can even lift the amplifier by the dials (which we did not dare try and would not recommend either...!)

You will also notice the large display on the outside, and the functions include the option of renaming and adjusting the level of the inputs, and that you can run the amplifier purely as a power amplifier in a multi-channel system by a simple press of a button from the remote (front left and right out from the receiver/processor to Amplifier One).

The CD player can not only handle 2 channel SACD but actually DVD Audio as well, even though it is not marketed to any great extent, in all likelihood because it can be difficult finding the right track (actually correct resolution and number of channels, that is 2 channel 24/292 kHz and not in the worst case, 5.1 Dolby Digital) without image display.

The transport system comes from Sony, the logics control from Philips and the D/A converter is handled by Burr-Brown's stereo-DAC DSD 1792.

The player has balanced outputs that match the amplifier's inputs, and it should be noted that both units are extremely robust as well as being sleek and stylish in appearance.

Both remote controls are identical and easy to operate, but the upshot of this is that they have no numerical keys. However, you can use the remote to switch between CD and SACD. If one was to be a little critical, the remotes do not match the finish of the electronics, to put it mildly.

The M66 floor standing speakers are currently DLS's largest and best, but a pair that are nearly twice as expensive are currently under development. However, for this article we are concentra-

ting on the M66's, which are well-built, stylish and continually tested over the course of the development work. This basically involves what is known as a 2.5 way bass

reflex design, where both basses work the whole way down in the bass, but only one takes care of the mid range. A smart and cost effective solution that normally produces a seamless, coherent sound without any obvious joints between the elements. The tweeter is large with an active surface as big as 31 millimetres, with extra wide suspension and a small voice coil which allows it to handle both low and high frequencies extremely well. The magnetic system is fairly conventional although it does have an extra sturdy aluminium baffle. The tweeter is attached using as many as six screws.

The design of the basses is something of a story in itself as the designer team do not actually like aluminium cones due to the ringing in the material, which can often feel less "musical" than the more forgiving properties of plastic (polypropylene) and paper. On the plus side, aluminium is both lighter and stiffer. The solution was an egg shaped dust cap of polypropylene,

attached with a very special adhesive and, as regards both this process as well as generally, succeeds in taking the edge off the drawbacks of using the metal.

Copper rings in combination with a T shaped pole piece in the magnetic system means that the inductance and magnetic flux are symmetrical, which results in the power being symmetrical whether the element is working inwards or outwards. The voice coil is compact due to the use of flat aluminium wire. The base is separated by 6 dB at 125 hertz, the tweeter at 3,600, 6 dB upwards and 12 dB downwards, other sequences Bessel. The components are few but are of a high quality, with air-cored voice coils, polypropylene capacitors and metal-oxide resistors. Everything is linked internally with Teflon insulated copper cable.

The bass is secured with eight screws, actually bolts, as they are screwed into inset threads. The elements have their very best work conditions when they are sitting in double baffles, so thick that you need to bevel off the material around the elements to allow them to breathe in the best way. The outside is impeccable with sleek mirror finish lacquer, smoother outriggers and a gently inclined front to ensure the correct phase.

With the amplifier originating from a Tyr, our curiosity was greatest here and a Tyr system was also conveniently on hand to make a comparison. Initially we thought that Tyr sounded sharper and tighter, and it proved to be so too. After listening for some time, it can be stated that the DLS Amp unit does not lack any of Tyr's detail sharpness or bass control, but rather adds a depth and power to the bass, and generally delivers a more full-toned and slightly warmer sound reproduction. Tyr is extremely good, particularly for the price, but the DLS amplifier is better, just as musically responsive, and delivers a little more of everything.

CD One is also built loosely on a Bladelius platform, but a lot has been changed, like transport system, logics, D/A converter, power supply but even the output stage, and it is actually only the basic circuit board layout that remains. We compared the system with Sony's new ES machine XA5400, which like DLS handles SACD in addition to normal CDs.

### 3 QUICK!

- Balanced XLR terminals available...
- ...but RCA sounds so good!
- SACD (and DVD Audio) playback from CD One



The rear sides have virtually everything you could want in the form of balanced XLR inputs and outputs. For larger systems, four line inputs, apart from the XLR pair, may be slightly restrictive.

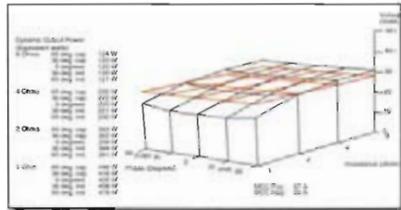
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NOTE! The headline says "SWEDISH HEAT". The english translation (Done by Teknotrans in Sweden) is placed on top of the swedish original text.



>>  
Vänd!

# Test! DLS CD One/Amplifier One/M66



DLS Amplifier One, despite a large transformer, measures more or less in completely the same way as Bladelius Tyr, with extremely good cubic appearance and easily above the cube ceiling at both 8 and 4 ohm, and the output is very good all the way down to 1 ohm impedance. However, the power measurement is somewhat weaker than Tyr, in particular it has a slightly greater asymmetry (67/55A), but 55 amperes is still a really decent figure.

- Very good total sound  
Warm, musically responsive  
High finish
- Basic remotes for CD One do not perform really at the same level as amplifiers and speakers
- Obviously a durable, well-tested stereo system that will provide many, long hours of great musical experiences.



**Function:** Integrated amplifier  
**Price:** SEK 23,000  
**Remote:** Yes, system remote  
**Power:** 2x100W/8 ohm  
**Inputs:** 1 pair XLR, 4 pairs RCA  
**Outputs:** 1 pair pre out, 1 pair tape out  
**Dimensions:** (WxHxD) 43x13x43 cm  
**Weight:** 16.8 kg  
**Miscellaneous:** Available in black and silver design, can be reset to just a power amplifier in a multi-channel configuration.



**Function:** CD/SACD player  
**Price:** SEK 23,000  
**Remote:** Yes, system remote  
**Outputs:** 1 pair XLR, 1 pair RCA, 1 digital S/PDIF (RCA), 1 digital optical Toslink  
**Dimensions:** (WxHxD) 43x13x43 cm  
**Weight:** 6.6 kg  
**Miscellaneous:** Black and silver design  
  
**Peripheral equipment:** Sony XA5400ES, Bladelius Tyr, Canton Karat Reference 6, Supra Sword, Audioquest

**DLS has tried to keep the remote control both simple and straightforward to use, but many of us will probably miss the numerical buttons for selecting individual tracks. The plastic design does not match the finish of the electronics in the best way either.**



tactile precision and never lose track of the basic ingredients of the music.

Playing together as a complete system, the DLS sound is apparent with all the desired clarity. The foundation is the somewhat warm fullness, a stable support to the base and an upper frequency range that never ever switches to piercing tones or hissing. Many people will probably raise a warning finger and think that the whole thing is overly warm and far too rich and embedded. But no, this is far from the truth, as the details are there to be heard and to a very great extent the sharpness as well, it is more the case that the DLS combination does not make it obvious to the listener that all the details are in place - which they actually are - but draws attention to itself instead. A very appealing feature to my ears, where the big picture always takes precedence, but where the details and the stereo sharpness are also present.

Or put it like this: If you only want to listen in an entirely relaxed mode without dissecting the music, this will work really well. If you prefer to listen more actively and look for the detail, sure, this works too, but it is not primarily for this reason the products have been developed.

DLS recommends balanced XLR transfer, but in our comparison with identical Supra Sword cables, with only RCA or XLR, we didn't actually think that the XLR transfer was preferable. It was certainly a little calmer and more controlled, but as a result less lively and vivid, so we ran for the most part with the RCA connection.

The amplifier was excellent and holds its position well in relation to most competitors in its price range. Sure, it was more expensive than Tyr, but on the other hand it does have two and more generously sized dials, a large display, but most of all a more genuine sound.

I would say the same thing about the speakers, but here personal taste plays a key role more than ever, and I can imagine that some listeners would like a more obvious, clear-cut, analytical sound. Personally speaking, I am very satisfied with the performance of the speakers, and you don't get a great deal more in the SEK 25,000 price range. Sure, one of the competing products may certainly have an even deeper bass, perhaps more powerful, but you will probably have to sacrifice a major part of the overall musical grasp and rhythmic for this.

The whole system plays really well together, which it should do as it has been developed and tested together on a continuous basis over many years. The somewhat weaker point is still the CD/SACD player, which although it does not look at all out of place there are even better options for the same price or even less. This also applies to a certain extent to the operation, where one particular bugbear is the time it takes to load a disc which may irritate some people. Listening to music on the other hand is no problem at all, and it is aesthetically matched like a hand in glove together with the high-performance amplifier.

When Mats Andersén develops speakers he uses the important midrange as a starting point, because if the transfer to the tweeter and the bass is not right everything will collapse like a house of cards. It is pretty much the same thing with the overall sound of the DLS system.



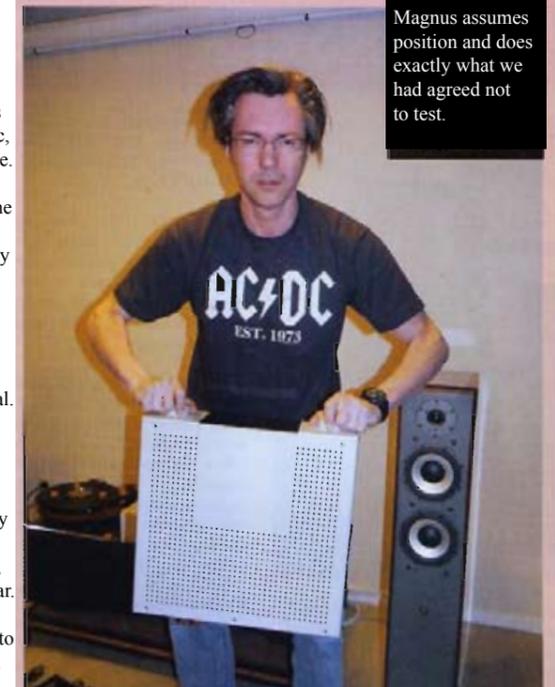
**Principle:** 2.5 way bass reflex  
**Price:** SEK 25,000 pair  
**Drivers:** 31 millimetre fabric dome, 2x6.5 inch bass/midrange  
**Crossover frequencies:** 125/3.600 Hz, 6/12 and 6 dB  
**Terminals:** 1 set  
**Nominal impedance:** 4 ohm  
**Specified sensitivity:** 89 dB  
**Dimensions:** (WxHxD) 20x108x36 cm  
**Weight:** 28.4 kg  
**Miscellaneous:** Available in mirror finish black (SEK 23,000) or the test rosewood  
  
**Info DLS Svenska AB,**  
Tel +46 31 -84 00 60, www.dls.se

In 9 cases out of 10, none of us listening will miss the very lowest bass, but if you are looking for full power in the very lowest octave, you will have to look elsewhere. To ensure a responsive musical sound it has been quite simply overlooked, and quite rightly so in my opinion.

If you are looking for the very latest dynamics from complex orchestral numbers, the DLS combination is perhaps not the choice for you either. It will work of course, but DLS is best suited when well-recorded, more rhythmically driven music is played, such as, Karin Bremne's *Sangen om Tyret ved Tornehamn* (from "Svarta Björn", Kirkelig Kulturverkstad). Or any kind of music actually, whether it be jazz, blues, rock, techno or heavy metal: DLS handles all genres!

## Magnus listens, lifts up and thinks...

I have used the full DLS system, not to test the various parts but to listen to the music, recordings and, actually, space. And for its overall impression, I can give nothing but the thumbs up for this DLS system! Regardless of what I play (new AC/DC, old Michelle Shocked or pink noise) I can still relax (With pink noise? RED) safe in the knowledge that the reproduction is neutral. It's certainly true, as Jonas quite rightly states, there is a particular warmth in the quality of reproduction, but this warmth is not the result of any over zealous tweaking of the crossover filter or electronics, which is why I like what I hear. As a whole it is an excellent system, but I would also like to mention the component parts.



Magnus assumes position and does exactly what we had agreed not to test.

To start with, the amplifier, which is particularly impressive. It runs rings round my own integrated amplifier, and if my sound memory doesn't fail me, an amplifier on the same level as my favourite in the price segment, Primare I30. The feel of the construction almost brings a tear to my eye, and the fact that you can lift it by the dials is extremely cool.

I think the main quality of the speakers is their ability to hold the sound together, and a fascinating side effect is that this also applies when the volume is extremely weak. Regardless of how low I play my music it is always the same sound image, just a lower volume, an equally unusual as welcome feature.

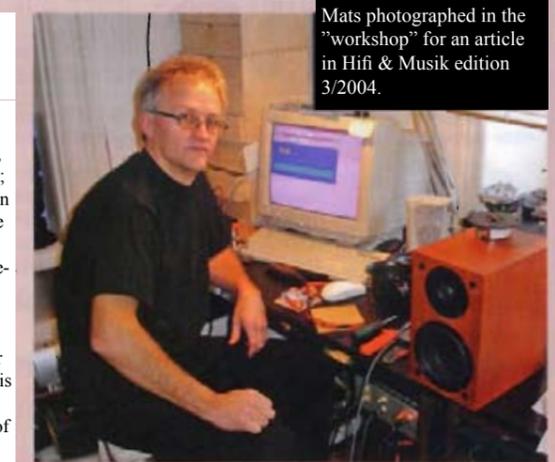
And then we come to the CD player which I think is pretty irritating when it comes to operation. It takes a while to load, and it persists in always displaying the CD text before it shows the time, which is very irritating when I am trying to localise the room resonances (for example, I am dependent on the counter to know which frequency I am currently on when I am listening in a sweep). However, I have no protests when it comes to the sound which I think definitely does its job in a satisfactory way, and my only complaints with respect to the operation can be set against the satisfaction that the amplifier and CD player have a common appearance and can be controlled by a common remote.

And with that we are back where I started, I definitely give the thumbs up to this system! I would love to own the amplifier myself, the speakers are great (even though I think that the amplifier would gain a lot by being matched with a pair of more expensive speakers) and the CD player is fine, providing that you are not as neurotic and impatient as me.

## Mats Andersen about...

... tweeter separation: "One of my greatest obsessions is not to separate the tweeter too low, as it loses connection to the air; for complex orchestral pieces in particular the tweeter will quite simply not be able to move a sufficient amount of air and thereby dynamically compromise the sound."

... speaker terminals: "We offer a set of speaker terminals as it is always better to buy a cable of a higher quality than two sets of substandard cable"



Mats photographed in the "workshop" for an article in Hifi & Musik edition 3/2004.