

Take a pair of active speakers, add a couple of digital-to-analogue converters, mix in some ingenuity and you have Meridian's D600

Boothroyd-Stuart, who manufacture Meridian gear, have a reputation for coming up with innovative designs. The firm's new speaker, the D600, is no exception. In fact, it's something of a world first.

Not only is this a three-way active speaker, with three 75watt amplifiers built into each cabinet, it's a digital speaker as well. This means it can accept signals directly from the digital output socket of a CD player, thanks to its built-in digital-to-analogue converters (DACs).

Normally, the digital pulses from a CD are turned into a smoothly varying, analogue signal within the CD player itself. This signal is then sent to the amplifier, in analogue form, down screened leads.

But Meridian have always believed it's best to do the digital-to-analogue conversion at the speakers, rather than in the amplifier or CD player, and to send the signal digitally. A digital signal is relatively robust, and variables, such the type of cable you use, make very little difference. You can appreciate Meridian's preference.

Of course, your tuner, record player and cassette deck don't stand to gain much from the D600's three digital inputs. For these sources, you must run screened cable from your preamplifier to one of the D600's two line-level analogue inputs.

The D600s are tall and narrow speakers, weighing 32kg each. Once spiked down firmly, they are unlikely to budge, and their proportions are easy on the eye. The review samples were in real-wood black ash veneer and looked very distinguished.

The cabinet is made from 18mm birch ply and there's a sturdy aluminium chassis for the electronics. All in all, construction is of a high standard.

There are three drive units in this ported design: a 25mm aluminium dome tweeter and two 165mm polypropylene-coned units (one for the bass and one for the upper bass and mid range). The LED display panel above the grille is the only obvious sign that the D600 is different to more run-of-the mill loudspeakers.

This is a vital part of the D600. Behind the glass lurks an infra-red receiver which picks up control signals from the 609 handset. That's right, the D600s are remote-controlled.

The D600's handset controls all of the speakers functions.

Meridian D600

typically £2500

You can switch the speakers on and into standby (the normal resting state). And there's an electronic volume control. The volume level and source are both displayed on the speaker's LED panel.

Then there are the sound shaping facilities. Tilt makes the whole sound brighter or duller. Bass allows you to boost or cut the low frequencies, while Q lets you add a sharp roll-off to prevent the speakers booming when used close to walls.

Provided you site them at least 25cm from the back wall and 50cm from any corner, you

should find the D600s fare very well. I certainly did.

The balance between left and right channels is also remote-controlled. By the way, none of the settings need be lost when you switch off, thanks to the D600's non-volatile memory. And if you are using Meridian's 207 CD player or 201 pre-amplifier, the 609 handset will control the whole system for you.

To take advantage of the digital input, all you need is a CD player with a digital out socket. You'll find such a socket on many players costing upwards of £200. You don't have to own an

expensive, esoteric CD player.

By using the D600's digital input, you enable the signal to bypass the DAC stages in your own CD player. Instead it goes through Meridian's 16-bit four times oversampling circuitry (as in the 207 CD player). It doesn't matter what type of circuitry your player has. The digital output from all machines is standard.

I chose to use the D600s in a 'type 1' system, with a Meridian 207 CD player acting as a preamplifier for the analogue sources. Full details of other suitable set-ups (including multi-room use) are given in the user manual supplied.

Meridian provide the basic cabling for you and setting up is



ALL ABOARD

easy enough. Via the handset, you then tell the speakers which one is the master unit and which the slave. The master speaker controls the slave and accepts your commands.

Next, you tell the master unit which of the speakers is to play the left channel and which the right. (The speakers come set up as master-on-left. If this is appropriate, no further set-up action is required.)

In the review system, I used a mains cable and a screened analogue lead to each speaker. There was one multi-code cable linking the speakers and a second linking the master to the 207 CD player.

If I've made the D600s sound complicated, believe me they're not. In fact, they're a doddle to use, and they sounded absolutely superb, especially with a digital signal from a CD player. I was unprepared for just how punchy, clean and detailed the D600s were, even given the elevated price tag of £2500, including the handset.

Their resolution of fine detail and tonal accuracy was a joy to hear. Musicians and singers on disc seemed much more real. On the Beatles' album *Help*, I could clearly hear each Beatle's voice, whether singing backing vocals or lead.

Annie Lennox' voice on the Eurythmics' *Savage* CD came over remarkably vividly. You could hear both her natural voice and — quite separately — the various studio effects mixed in on top of it. Listening was that much more enjoyable.

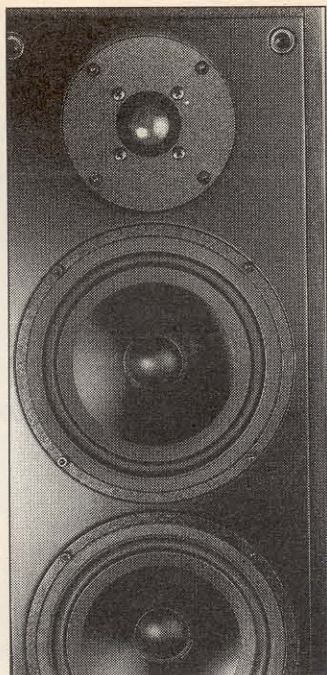
The bass came over with a tremendous degree of slam. The speakers gave a notably deep bass as well, which lent scale and authority to the music.

The D600s were well defined, too. On *Refugee* from Camel's *Stationary Traveller* CD, for example, there are sliding notes in the low bass which the D600 speakers revealed perfectly.

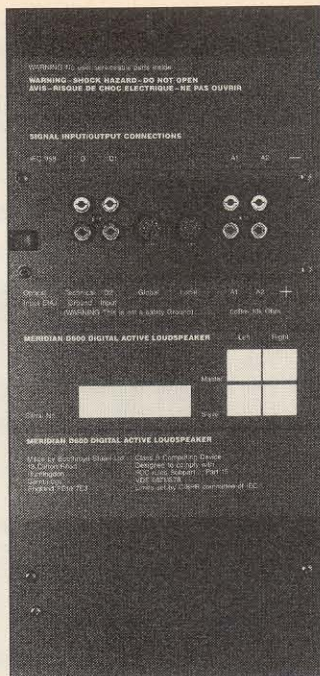
And on a Decca recording of Kyung-Wha Chung playing Beethoven's *Violin Concerto*, the tympani in the first movement come over as distinct musical lines, not just muffled thuds. The warmth of the double bass was also well conveyed.

Well-recorded rock drum kit was tight and percussive, and on Gary Moore's *Victims Of The Future* CD, you could follow the guitar-playing note for note, even in the faster and more furious passages.

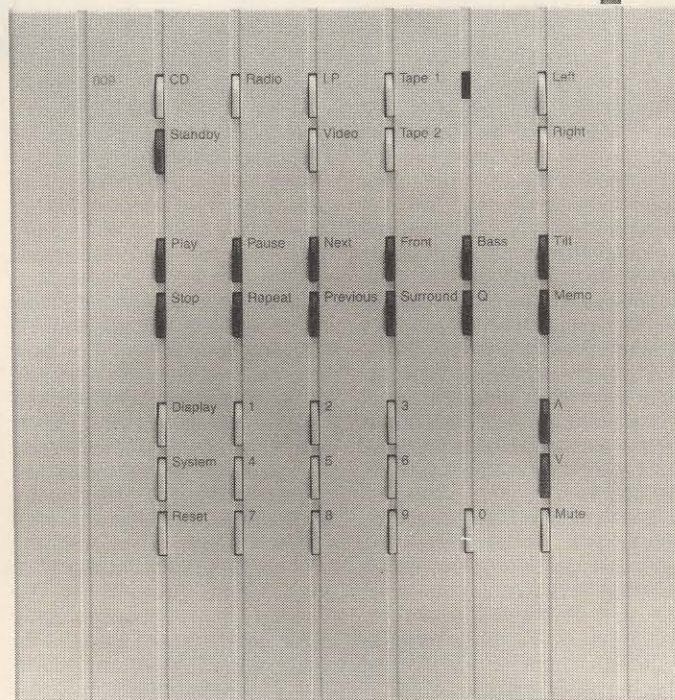
Studio reverb and real ambience were both portrayed very clearly. A good example is a Decca CD I like featuring Lynn Harrell playing J S Bach's cello suites. Many systems make the poor chap sound as if he's playing a plastic cello in a padded cell. The D600s put this to rights straight away, giving him back his wooden instrument



Three-way design: an aluminium dome and two coned units below



Digital inputs: offers a choice of coaxial or optical connection



609 remote handset: it can control all of the speaker's functions

and setting him in a real acoustic space. Such things help to put the D600's price-tag firmly into context.

For much of my auditioning I used CD, but the D600 speakers can also accept digital output from a DAT (digital audio tape) player. This is interesting, since DAT and CD use different digital sampling rates.

In fact, the D600s can accept signals with sampling rates anywhere between 36kHz and 50kHz, and will automatically lock onto the right frequency. There's also a facility to accept a 32kHz digital signal (for satellite video) and an optical input.

A special de-jittering circuit

helps to get the cleanest incoming digital signals, and there's a separate DAC in each speaker, which helps keep channel separation high. All this, plus attention to power supplies, earthing and screening, makes the D600 more flexible and sophisticated than most of the add-on black box DAC converters on the market. Designer Bob Stuart is confident his circuitry sounds better too.

I also listened to LP and radio through the D600s, whereby the signal is delivered in analogue form. The sound quality was so good that even if the D600 had had no digital circuitry, I would still have been impressed with

performance of this speaker.

Using Meridian's CD player, it was possible to compare the quality of digital and analogue signals directly, switching between the two on the handset. With the Eurythmics' *Savage* as guinea-pig, I found that digital transmission gave a firmer, more confident sound. Bass was punchier and deeper, and background instruments better resolved, as if a veil was lifted.

And so to some minor moans. Firstly, the price. Regardless of how dedicated you are to good sound, you can't have the D600s unless you've got two and a half grand to spare. Set against this, you get an awful lot of speaker and electronics for your money.

If you play the speaker at very high volumes, then it loses some of its poise, but that's true of all speakers. The D600 can put out 110dB SPL (which is plenty) and there's a temperature-operated cut-out just in case you do breach their limits.

Thirdly, the speaker doesn't work without the handset, unless you're using Meridian gear. So buy a spare set of batteries.

Fourthly, there are quite a lot of cables involved by the time you've added analogue sources. It can look a bit messy.

More importantly, one part of the speaker's circuitry is likely to become out-dated before the rest. Digital technology marches on, and there's bound to come a time when you want to update the digital circuitry in your D600. Unfortunately, you can't.

Mind you, that consideration applies when buying any piece of digital gear.

Then there's the LED display, which seems nothing more than a distracting gimmick.

I was slightly sceptical about the D600s before I listened to them. After the speakers had been whisked away though, I found the prospect of going back to my more conventional speakers a trifle boring.

In conclusion, the D600 speaker is successful because it's much more than the sum of its parts. The individual parts are good, but combined they turn the speaker into a really convincing and memorable performer. I, for one, shall not forget them in a hurry.

As to the significance of DACs in speakers, only time will tell. Right now, if you've got the means, you owe it to yourself to audition the Meridian D600s — even if you don't own Meridian equipment. Don't be daunted by the technical complexities. Listen to the music. **John Seabury**

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