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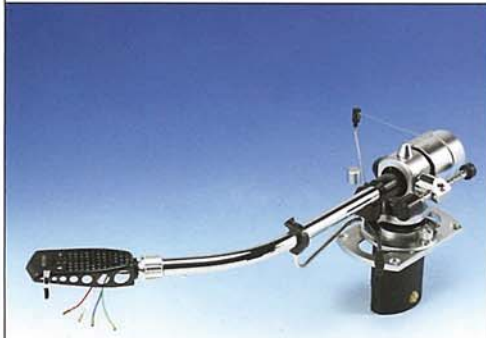
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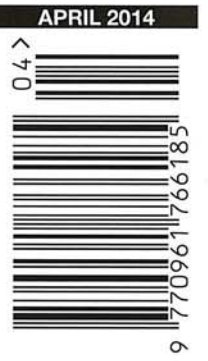
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High point

Tannoy's new DC10A is a high standing, point source loudspeaker. Designed to bring Tannoy's sound into a normal home, it has Noel Keywood impressed.

Big Tannoy loudspeakers are famously focussed and powerful in their delivery. Large cabinets combined with massive drive units are able to produce breathtaking dynamics, scaled way up on what we are used to from typical small-cabinet designs. But big loudspeakers need big rooms to work properly. The new DC10A I am reviewing here is brings big cabinet performance into more accessible realms. You don't need a castle for this one, as you do for some of Tannoy's Prestige range, but you do need a sturdy wallet, since the DC10A costs £11,500.

It was some time ago now, in our November 2010 issue, that I reviewed the DC10A's predecessor, the DC10T and I remember it well. Two features in particular caught my attention: gorgeous insight and overwhelming bass power. Their bass was heavy in our large listening room, but I tuned it into compliance, as it were, by using foam port bungs. With the new DC10A Tannoy have reined in the bass to produce a tighter and more natural balance better suited to medium sized rooms – and they have included a set of foam bungs as standard! But the wonderful sense of

insight that came from Cryogenic treatment, as well as high quality crossover components, as been further enhanced in the new DC10A. Now the cone is treated, as well as the crossover, and an Alnico magnet has been used in the new 10in Dual Concentric drive unit to further improve the loudspeakers sense of depth and strong dynamics.

All of which goes to explain what you see with this beautifully finished floor standing loudspeaker. Unneeded, it drops the bass unit of the old DC10T, but it retains twin rear ports. Designed to have a less inflated sound at low frequencies, as standard, it still comes with foam bungs so as to be tunable for taste and to accommodate various room sizes and shapes – a variable and a headache for all loudspeakers designers. Using the foam bungs damps bass by reducing port output and by changing the bass loading from reflex to infinite baffle, the latter having better damping but lower output than reflex.

Big loudspeakers give a big sound because their cabinets have sheer volume, so they go low cleanly. This is what Tannoy have tried to maximise with the DC10A. It is tall, standing 1.1m high (1135mm) and quite wide at 345mm maximum, although curved cabinet sides lessen this visually, making it look slim from the front. Depth including sockets is 438mm. That gives a large 3.64 cu ft (103 litres) volume cabinet able to give deep, powerful bass.

Built of Birch plywood, rather than the usual MDF or fibreboard, the cabinet is finished in Black, or Cherry and Walnut real wood veneers carrying a deep gloss finish. It gives the DC10A a lovely, rich appearance, one that will blend into most homes. The 'speaker manages to tread that fine line between modern and traditional, so it will suit any home. But where traditional loudspeakers sat on a wooden plinth or dais, the DC10A comes with heavy, two part machined aluminium plinth for each cabinet that bolts onto the cabinet from below and carries massive, top adjustable floor spikes. These improve the cabinets' stability, as well as looking smartly modern and hi-tech. As architects put it, they manage the structure's ground interface.

The underside of each cabinet has a small cover over a chamber that accepts either sand or other ballast materials, such as dedicated

Atacama Atabites. Mass loading is quite a business but it does work well I have found. Silver-sand is good but must be dried first, or gravel can be used, and materials like this are best bagged to avoid mess. They add to



The rear panel carries sturdy WBT loudspeaker terminals and an earth terminal too.

a 'speakers weight and since the DC10A comes in at 42.7kgs (94.1lbs) with stands I did not do this, because for review they must be moved around, which mass loading makes just about impossible.

The Dual-Concentric drive unit has a 10in treated fibre pulp cone, as well as a large Alnico magnet that Tannoy interestingly claim sounds better than the more common Ferrite types (Neodymium is too expensive and rare for this role, by

the way). At the base of the cone sits a large (2in, 51mm) aluminium dome tweeter that fires out through a concentric horn, making this a two-way loudspeaker, even though it appears to have just one drive unit. Putting the tweeter at the centre of the bass unit makes the Dual Concentric a 'point-source' radiator that has the benefit of sounding smooth and even from wherever you listen, on-axis, above or below. OK, so we don't sit on the ceiling when listening to a loudspeaker, but the ceiling does bounce sound back at us, as do the walls, and Dual makes it the same sound as sent forward. Walking around the room, sound from Tannoy's Dual Concentric remains even too. And because the tweeter is double the size of most, it crosses over lower down (1kHz) and more smoothly than those of other loudspeakers, whilst still managing to reach right up to 18kHz.

Big Tannoys are sensitive – notoriously so! The giant Westminster Royal needs just a few Watts to go stunningly loud, for example. We measured a high 91dB sound pressure level from just one Watt, so you don't need a giant amplifier for the DC10A, in spite of its size; somewhere around 40 Watts should do, with 100 Watts being more than enough. It's best that they are high quality Watts, because sensitive loudspeakers like the DC10As will be drawing just a few Watts most of the time and this is where transistor amplifiers perform worst.

Connection is through a large rear panel carrying high quality WBT connectors able to accept bare wires, spades or 4mm banana plugs. They allow bi-wiring, coming with bridging cables for mono-wiring (i.e. single cable connection). There is also an earth terminal that I duly connected from each loudspeaker back to the power amplifier, but I have yet to notice this makes a big difference, even though the local ether is wi-fi infested!

SOUND QUALITY

I used a minimalist system to drive the DC10As, most of the time using Sugden's new FPA-4 Single-Ended power amplifier, driven via balanced cables direct from an Audiolab M-DAC. Feeding the M-DAC's optical digital input was an Astell&Kern high resolution digital player, delivering both CD and high resolution music, mostly 24/96 (FLAC and WAV). I ran

the DC10As heavily to ensure they had bedded in, using both pink noise and our De-Tox disc. I also used Quad II-eighty valve power amplifiers.

The listening room was a large volume space, measuring 25ft long, 18ft wide but with a 13ft high and sloping ceiling, amounting to 5800 cu ft. With a room like this that is tuned below the 'speaker, I get to hear what the speaker is doing, without the room impinging upon it. In smaller rooms, what is known as 'room gain' will boost bass and affect its quality, as it does with all loudspeakers.

What Tannoy have done with the DC10A is made the drive unit do more of the work than the port, whilst keeping it well damped acoustically so as not to over-excite medium sized rooms. The port delivers sub-sonics below 35Hz. So the DC10A has been acoustically arranged, as it were, not to over-drive a normal room, which is where it differs from the DC10T.

Much as expected the new DC10A had dry and tight bass in our room, but it was fast and impactful at low frequencies. Bass lines, such as the steady, repetitive leading line in Misery, from Daves True Story (24/96), moved smoothly up and down the frequency scale, with no overhang or bloom. The bass line in the Eagles 'Busy Being Fabulous', from Long Road Out of Eden, rolled along cleanly, each note sounding firm and well defined. The DC10As reach down low and had real impact lower down. It was quite a different animal to the DC10T here.

Our room was actually a tad too large; I would guess the DC10As have been tuned for an 18ft long room, or less. But in an over-damped situation – speaker and room – such as ours I could tune in a little bass boost on the AKI20's equaliser to good effect, when using its analogue output.

Where the DC10A shone was in its fabulously large sound stage, and its sense of powerful projection. It's here the old DC10T caught my attention so strongly and the new DC10A builds upon the effect. Marcia Gomez sang Lucia (24/96) from around one foot above the loudspeakers, at the centre of the sound stage. The DC10As don't 'letterbox' the image; they eerily project it as large panorama, and it is this that is so arresting. With superb clarity and deep internal detailing I felt enveloped by performances; with the Boston Symphony Orchestra playing Rimsky Korsakoff's Snow



Maiden, 'Dance of the Tumblers', the orchestra had enormous scale in front of me, kettle drum strikes resounding around the room helping toward a sense of power.

The DC10As are crisp and fast in their treble, but cymbals had

weight to them as well as forceful speed. There was none of the slightly hissy quality that's so common to alloy dome tweeters, although the M-DAC's Optimal Transient filters especially suited the Tannoy's revealing top end and helped here.

CONCLUSION

The DC10A is a big Tannoy for a medium room. I guess in truth at 1.1m high it isn't so big, but it sounds bigger than it really is. This is a loudspeaker where the adjective "scale" comes to mind. As in scale of sound stage and dynamic scale too. Yet at the same time it is insightful and sophisticated in its delivery. If you want to be impressed do listen to the new DC10A. Big Tannoys are just exciting and this is a fine example of the breed.

MEASURED PERFORMANCE

Off axis, treble output is flat to 18kHz, before a sharp cut off above this frequency. On-axis, output from the tweeter lifts by 3dB so if pointed directly at listeners the speaker is likely to sound a little bright.

Our impedance curve shows the titanium dome tweeter at the base of the central horn works down to 1.5kHz where crossover wavelength is relatively long and problems minimised. Its output isn't so smooth but variance stays within reasonable limits, a dip and peak around 4kHz suggesting some small phase change (subtraction/addition) mechanism.

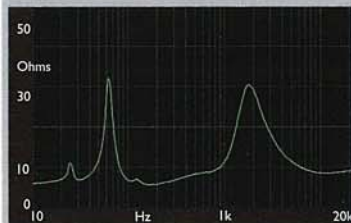
The large pulp cone bass unit works from 1.5kHz down to 40Hz, its output falling away smoothly below 100Hz – an over damped response suggesting the DC10A will give tight, dry bass and

FREQUENCY RESPONSE

Green - driver output
Red - port output



IMPEDANCE



may well be used close to a rear wall.

The ports are tuned low, around 35Hz, our impedance plot shows. Acoustic output from the port (red trace) shows they provide a small amount of low bass fill-in, boosting subsonic output only.

In all then, the DC10A goes low, and the big bass unit working in a big cabinet volume covers the whole range, with strong acoustic damping. The DC10 A is quite different to the earlier DC10T in this area, with less bass and stronger bass damping.

Sensitivity was very high, as usual with big Tannoys, measuring no less than 91dB from one nominal Watt of input, even though impedance was high too, measuring 9 Ohms overall. So the DC10 A needs little amplifier power and will go loud even with specialised (e.g. Single-Ended) 10-20 Watt amplifiers; it hardly needs more than 60 Watts maximum.

A 200mS decay analysis shows consistently low coloration right down the audio band, even into the difficult bass region where cabinet resonances (standing waves) are expected. In fact, with no hot regions, the DC10 A is much cleaner than most loudspeakers, almost certainly due to the large cabinets. The tweeter is clean too.

The DC10 A is quite different to the DC10T tested in our November 2010 issue. That loudspeaker had very strong bass and needed foam port bungs, but was otherwise superb. The DC10 A appears to retain the DC10's strengths but has tighter and cleaner bass. It is unlikely to sound bass heavy in a room.

NK

TANNOY DC10A
£11,500



OUTSTANDING - simply the best

VERDICT

Dry, punchy bass and enormous midband insight, with impressive Tannoy dynamics. Awesome!

FOR

- bass quality
- superb insight
- appearance and finish

AGAINST:

- heavy
- expensive

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