Andy Stewart wears these new monitors like a pair of Levis.

Holy mackerel, they’re alive! After nearly two weeks of listening to the PMC DB1s and finding no way around the opinion that they were dull and devoid of bottom end, they have finally worn in and sound clear and full. It’s a miracle!

So shocked was I by the transformation in the DB1s that I initially went searching through my monitoring chain looking for a reason why they had suddenly developed full bandwidth. My search was a pointless one – the solution lay in the monitors themselves. I’d been told that PMCs required up to 100 hours of ‘running-in’ time but part of me just wouldn’t accept this as anything other than a lame excuse for an ordinary speaker. But it was true – it makes me wonder how many different brands of speakers there are out there that require similar ‘running in’ treatment.

The DB1s finally make sense now. With the limited bandwidth that plagued them out of the box, I was struggling to imagine where these speakers could be of use, and given that they initially sounded like glorified Auratones, there seemed little hope of giving them the thumbs up in this review (for those of you hankering for a scathing product review, we were close, but they saved themselves right at the death knock). But now it’s clear that these monitors are ideal as satellite speakers in a wide variety of surround sound setups, or as nearfield speakers in a recording/programming suite.

PMC hails from Hertfordshire, England, and the DB1s are the smallest speaker in their range, standing only 29cm tall. The DB1 shares the same transmission line cabinet design principles found throughout the PMC range, and thus possess more controlled bottom-end extension than your average reflex monitor of similar size. To understand how the internals of this speaker design works, have a squiz at the diagram.

The DB1 is the world’s smallest transmission line speaker, with a line length of approximately five feet. Placed inside a heavily damped cabinet, the transmission line provides support for the driver by creating back-pressure similar to the exhaust pressure in a car’s engine. Because the transmission line’s ‘exhaust port’ is smaller than the back of the driver, air cannot escape freely, and this subsequent air pressure build-up creates a piston-like effect. Combined with the friction drag of the internal foam lining of the transmission line, the port produces controlled low frequency information without ‘falsifying’ the bandwidth of the speaker cabinet. This makes it feel less like a ‘try-hard’ little speaker with a Napoleon complex and more like a larger monitor (some small monitors just sound wrong in this respect, but this isn’t one of them). Furthermore, as the output of the speaker increases, so too does the support for the driver which gives the monitors a firm and controlled bass response at high volumes.

The other advantage of this design is that the driver coil is kept cool. When a driver is worked too hard the coil heats up and ultimately this reduces its ability to turn current into movement. The transmission line design keeps the driver from being over-worked in the same way that a shock absorber keeps the wheels of a car on the road. It provides the speaker with a balance and firmness that prevents it from ‘flapping’ and distorting. PMC has developed their entire range around this design concept, and this provides for a consistent tonal balance throughout all the models in the range – a crucial requirement of any multi-speaker setup.

The DB1 has a four-inch mid/bass driver and an aluminium alloy dome tweeter that is Ferrofluid cooled. It shares the same power rating (150 watts) as the larger TB2 and provides clear imaging even at very high SPLs. The cabinet is well built and finished in either grey or oak veneer, and in Australia, magnetic shielding is an ‘option’ fitted to all the greys as a matter of course. The speakers come with stylish covers, and with these front screens left on, there’s an ever so slight roll-off in the top-end response of the speaker, so for reference monitoring I’d be inclined to leave them off (surprise, surprise).

As a nearfield monitor, the DB1 is perfect for anyone with a space issue; they take up precious little real estate but don’t feel compromised in terms of their frequency response (after 100 hours!). Personally, I would prefer more sub-harmonic content in a speaker, but even with the transmission line design, a speaker of this size is physically incapable of reproducing these low frequencies. The DB1s can, in fact, be run with a sub, and to that end there are two alternatives in the PMC range; the active TLE1 and the passive XB1-P. The latter is designed to be placed in-line between the amplifier and the DB1s. The accurate crossover network in the XB1-P filters all the frequencies below 90Hz and directs them to its own three-inch dual voice coil driver, the remaining frequencies are then passed to the DB1s to produce a very potent, high power-handling combination.

That aside, the DB1s are remarkably balanced for a compact monitor. Rock ‘n’ roll still packs a punch through
Transmission Lines and Running in PMC Drivers

Because a transmission line is extracting bass out of the driver, the pressure in the cabinet behind the drive unit is quite high. Unless you use thick cone drivers, they’re liable to bend, and as soon as they start bending you’ve got distortion. There aren’t that many small units rigid enough for PMC to use. If you were to remove the drive unit and look into the transmission line, you would see a long column, if you like, of air. The drive unit has to move that air; expel the air quickly, and stop that air quickly. The only way you can really do that is if you’ve got a very stiff drive unit with a powerful magnet and coil assembly. This results in a need to exercise or ‘run in’ the drivers and this takes at least 20 hours of solid use, preferably much more. The response is flat only after the drivers are ‘run in’. – Peter Thomas, PMC.

them, and they still give you the ability to hear right through to the back of your mix. Bands like Foo Fighters and Powderfinger feel solid and punchy without the soundstage feeling weedy or desperate and the ‘Napoleons’ are carefully avoided.

If I were in a position where space really was a problem, these little monitors would be up for serious consideration. Having said that, with the sub component, the DB1s are more than capable of producing high SPLs in a wide range of room sizes. They’re ideal, for example, in a room where a big sound is required but the monitoring needs to be discrete. They look good as well as sound good, and their tonal performance is consistent at various listening levels. As a surround monitor they’re great for all but the largest of rooms and in this arrangement their lack of sub-harmonics becomes an irrelevance. All in all, they’re a classy little British monitor with a pedigree that is quietly growing in stature.

Manufacturer Info

* PMC
Web: www.pmccloudspeaker.com
See our Contact Directory for local contact details

Price Guide

* US$980 a pair (black/magnetic shielding or oak finish)