

“AWESOME”

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“... the Servo-15 kept astounding me with previously unheard depths and levels of deep bass. Not just the sort of bass you can hear, but the type that hits you in the stomach ...”



by Stuart M. Robinson

Canadian loudspeaker maker Paradigm has made a virtue of combining solid performance with great value. So does its Servo-15 subwoofer follow this path?

The Reference Servo-15 hails from Canadian loudspeaker manufacturer Paradigm. Just like the other brands in this test, Paradigm loudspeakers and subwoofers are held in high regard, particularly in professional circles where their powered monitors are used in the production of both music and movies. Part of the company's success lies in its attention to detail and the way in which its products are developed.

For example, its research and development facility incorporates a 33,000 cubic foot anechoic chamber in which accurate measurements of frequencies down to 10 Hz can be made. A pretty handy thing to have when producing monstrous subwoofers.



Monstrous is a good way to describe the Servo-15. As you've probably guessed from the model number, the Paradigm uses a 15 in Kevlar fibre reinforced composite cone driver and to power it, a 400 watt RMS, high-current amplifier. According to the supplied specifications, this means a clean in-room frequency response at -3 dB of 14 Hz with an SPL of 115 dB. Yikes! The Paradigm line is split into two camps, the higher-end products carry the 'Reference' moniker and with figures like those it's not surprising that the Servo-15 can be found within this group.

The black cabinet is much larger than that of the M&K and even that of the B&W, reviewed elsewhere—it's 53 cm high, 46 cm wide and 56 cm deep and just like the B&W it weighs 35 kg, so I was careful not to put it down on my toe. The huge driver is positioned upon the shortest side and hidden from view by a black grille cloth, the removal of which to

reveal the huge, rigid woofer is a sure-fire way to impress your friends.

Around the rear, the Servo-15 has disappointingly few controls and inputs. In fact, apart from the power On/Off switch which also provides the 'Auto on' function at its midway point, only a single phono input and volume control are included.

THE X-30 CONTROLLER

But wait! Another box, within which is a Paradigm X-30 controller, accompanies the Servo-15. It is upon this small box, just 4.8 cm high, 18 cm wide and 12.7 cm deep, where all the hook-up options and adjustable parameters reside. Designed to be mounted in your equipment rack, the infinitely variable phase, between 0 and 180i, upper roll-off frequency, between 35 and 150 Hz using a 3rd order filter (18 dB per octave) and the volume of one or two subwoofers can be controlled. Five sets of phono inputs can be found on the rear of the X-30. In the most simple configuration, a mono line is input and another mono line is output to the Servo-15 (Paradigm supply a long length of phono terminated cable for this). A second subwoofer can be connected in the same way although the phase of the second cannot be controlled. The input can be from a dedicated subwoofer output or from a line-level amplifier link or pre-amp output containing the full frequency spectrum.

Three further sets of outputs are labelled 50, 80 and 120 Hz. These are high-pass filtered outputs. For example, a line-level full-range signal from a processor could be connected to the X-30, either mono or stereo. The X-30 would then send controlled low frequencies to the Servo-15 and depending on the selected output, frequencies below that point would be removed using the internal 3rd order (18 dB per octave) filters before passing the signal on to your amplifiers. There are considerable benefits in doing this; it eases the burden of low bass upon amplifier and loudspeakers alike.

It can be a little tricky getting to grips with the intricacies of the X-30 and the

possible configurations are too involved to go into here, but let's just say that time should be set aside for experimentation before settling on one set-up method or another. Knowing the low-frequency response of your existing loudspeakers and enlisting the help of a set-up CD such as the Delos 'Surround Spectacular' and an SPL (sound pressure level) meter would be worthwhile.

FOCUS

This Paradigm needs a large room to perform to its best. It's tricky to position and it's not best suited to a dual-purpose role of music and movies. But if you want a subwoofer that can go low and loud, audition today.

As I've already mentioned, the X-30 operates with line-level input and output signals only, but another Paradigm subwoofer controller, the X-20 can be selected instead. This accepts and filters high-level (loudspeaker) lines and passes a suitable low-level signal to the subwoofer.

If you don't want to bother with the X-30 or X-20, the Servo-15 can be directly connected to the sub-woofer/LFE output of your home theatre processor or receiver.

Even before I listened to any music or movie material with the Paradigm in place its exceptional low frequency extension became clear. The subwoofer calibration noise from my THX amplifier alone was enough to shake the floorboards of my room and rattle everything on nearby shelves that hadn't been nailed down.

Pots and pans clattered in the kitchen, taps in the bathroom began to drip and a bird at the bottom of the garden fell off his perch.

Even given only moderately eventful movie soundtracks to work with, the Servo-15 kept astounding me with previously unheard depths and levels of deep bass. Not just the sort of bass you can hear, but the type that hits you in the stomach and you can feel through the soles of your feet. There's nothing subtle about the Paradigm, it's not musical

like the B&W and doesn't integrate as seamlessly as M&K, but what it does do is produce frequencies lower than you're likely to have experienced before.

This subwoofer actually has the potential to make you feel physically sick after banging out extended periods of bass-heavy material. No, I'm not kidding. If you plan to hold a children's birthday disco in your home theatre room make sure it's before they start stuffing themselves with jelly and sausages on sticks.

At this point I'll admit to a failure. What I would usually do when reviewing a subwoofer like this would be to push it to its limits, noting what material it had problems reproducing and at what levels it ran out of steam. Sorry, I didn't have the nerve to try this with the Servo-15. At 5 dB above THX reference level I decided that I valued my hearing and my home too much. And I didn't quite relish the idea of seeing my dinner reappear. Awesome.

SLAM ****
DEPTH *****
PRECISION *****
OVERALL *****