



SUB-IN-A-BOX.

▶▶▶ This is one impressive-looking sub! Obviously you can mount the driver that's in it (Option Audio's OA12DVCPro) any way you want, and in an enclosure to suit yourself, but Option Audio sent it over in one of their smallest wedges to save us any trouble—very thoughtful. Particularly thoughtful for you too, the consumer, as buying it as a package (as reviewed) can solve the hassle of designing and manufacturing your own enclosure; something that must be done with all the correct parameters in order to reap the best performance from the driver.

SIZE MATTERS

Looking at the basics first, the overall diameter of this driver is 323mm, so it's effectively a generous 12-incher. However, the huge elliptical rubber roll surround Option Audio provides to ensure the longest possible cone travel means that the Thiele/Small diameter is just on 255mm, to give an impressively spacious Sd of 510cm². The cone appears to be of dual-layer construction with its Kevlar woven

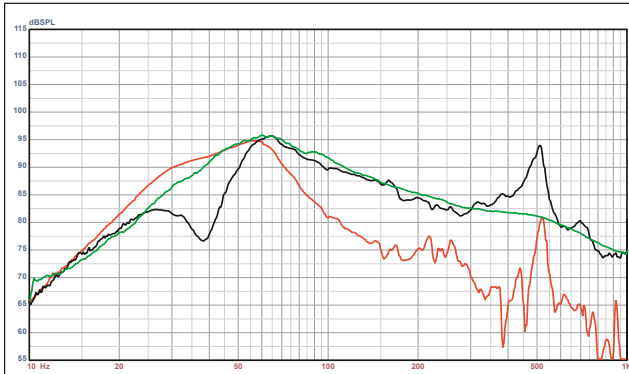
surface laid over a pulp fibre base. It's a super-bright alloy colour, to match the solid metal machined dress ring around the driver's circumference.

As you can see, the cone has a dust cap at its centre, attached to which are the stylised 'O' and 'A' letters that are Option Audio's logo. The dust cap itself is made from black plastic and is slightly dished. Our sample had an errant glue spill at one point where the dustcap was glued to the cone, plus a few glue voids between the cone and the cap. Not important, and easily fixed, but a little unsightly if you're entering a comp. Speaking

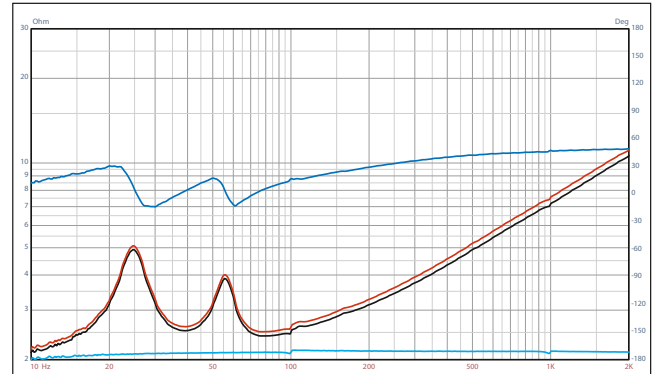
of glue, the rubber surround is not just glued to the cone: it's also double stitched, using high-tensile synthetic thread.

But if you think Option Audio's driver is impressive from the front, just wait until you look at the business end 'round the back! The basket is so deep that it's almost egg-shaped, and is beautifully machined. There are six alloy 'legs' each of which branch into two at the periphery, so you get maximum air flow. There's only a single spider centering the 75mm diameter voice-coil in a single magnet, but it's absolutely huge and located half-way down the basket to ensure it doesn't impede cone travel in any way. The magnet itself is centre-vented, with a chromed back plate, and the chassis design means the overhung copper-wound voice-coil will be constantly

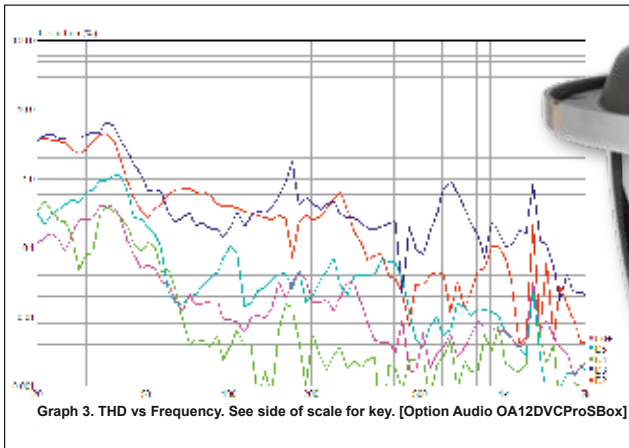
“BUT IF YOU THINK OPTION AUDIO'S DRIVER IS IMPRESSIVE FROM THE FRONT, JUST WAIT UNTIL YOU LOOK AT THE BUSINESS END 'ROUND THE BACK.”



Graph 1: Nearfield sine frequency response of bass driver (black trace) and vent (red trace), plus far-field pink noise response (green trace). (Note that data for port has not been re-scaled to compensate for differences in radiating area.) [Option Audio OA12DVCProSBox.]



Graph 2: Impedance vs frequency, plus phase. Red trace is voice-coil No. 1, black trace is voice-coil No. 2. Blue trace is phase angle. Trace under is a reference 2-ohm precision resistor, measured at the same time for calibration purposes. [Option Audio OA12DVCProSBox.]



Graph 3: THD vs Frequency. See side of scale for key. [Option Audio OA12DVCProSBox.]



OPTION AUDIO OA12DVCPROS

TYPE: 12-inch dual voice-coil subwoofer with dedicated enclosure

POWER HANDLING: 800-watts RMS

MAX POWER RATING: 1600-watts

IMPEDANCE: Dual 2-ohms

SENSITIVITY: 90.2dB SPL

FREQUENCY RESPONSE: 10Hz–2kHz

MAGNET STRUCTURE: 8.5kg

COST: \$449 including enclosure

CONTACT: Option Audio on 07 3805 5112

WEB: www.optionaudio.com.au

cooled by the motion of the spider itself.

Or to be more exact, that should have been voice-coils because the OA12DVCProS is a dual voice-coil design, with each coil specced with an impedance of 2Ω, so you can series them for 4Ω or parallel them for 1Ω. The two leads are brought out to dual press-lock connectors in a plastic terminal block located on the side of the wedge-shaped enclosure.

Option Audio's enclosure wedge was beautifully constructed, with a particularly flashy synthetic cloth covering. It measured 540×410mm at its base, thinning to 240mm at the top of the wedge and was 400mm high, for a volume of around 54-litres. As you can see, the wedge is reflex-loaded with a 340×45mm slot alongside the driver. This isn't a simple slot: it tunnels back to the rear of the cabinet before making a right-angled turn and extending almost half-way along the inside of the cabinet before opening wide immediately behind the driver. In a particularly nice touch, the OA logo on the wedge is not an el-cheapo screen print; it's actually embroidered into the fabric!

LISTENING SESSIONS

If you're a fan of kick-arse bass you're going to love this sub because it absolutely powers down in the kick-drum/electric bass guitar region. No shortage of grunt here, and it's all very clean-sounding. Listen to the bass lines on the Wons Phreely track *The World Has A Bank Account* (off the new album 'Tonight')

and you'll hear what I mean. The bass dug deep too. I fired up the intro to *Dark Side of the Moon*, which has high-level 27Hz signals on it and the Option Audio just blasted it out. It even managed to deliver Neurodisc's 'Drivin' Bass' CD at high levels; and that has high-level deep bass all the way down at 20Hz.

All this bass comes with a catch, however, which is that despite playing around with different splits and crossover points, and to a certain extent with where I positioned the wedge in the car (there were only so many places it would fit!), I was only ever completely happy with the sound when I set the crossover point no higher than 100Hz. As long as I didn't cross over any higher than 100Hz, the sound was great, but if I crossed over higher, the sound started to fuzzi up. I don't see this as a biggie, because that's a pretty reasonable crossover point for such a large bass driver, and you'll certainly have lots of choice for blending higher-up.

CONCLUSION

Given the amount of bass at hand here, the quality of build (both the driver and enclosure) and the reasonable price, well, all we can say is... wham bam! Treat it right and watch you don't blow your windows out... <<<

- Tremendously low and powerful bass
- Very good build quality
- Convenience of opting for enclosure

- Sound "fuzzes up" if crossed over above 100Hz