



POWERFUL THINGS CAN COME IN SMALL PACKAGES.

Time has a peculiar effect on trends. When first starting out in audio years ago trend tended to dictate that amplifiers had to be gargantuan and covered with heat-sinks to have any kind of status in car audio society. Ah, those were the days; days when you could peek into someone's boot at a sound-off and see a BBQ plate stretching from one side to the other!

However during the 90s things started to change and to be fair it wasn't just due to the futuristic tastes of generation Y constituents. We also have to factor in that technology was also advancing at a rapid pace with perhaps the most notable demonstration of this being the jump from analogue to digital switching amplifiers, especially within those amplifiers specifically designed for powering subwoofers. These units were not only becoming smaller by the day but were actually growing in power. The single downside however as with any new technology was that there was a serious cost associated with the development of them. So as we fast forward to today we find that the size and power has remained the same but guess what? Class-D digital technology is hardly new anymore so that means costs have come down to earth. Matter of fact; some of the asking prices today are simply

astounding and they're not from no-name has been brands either. We're talking some pretty serious power figures for very little money and this is where JVC's latest range comes in.

DRVN TO DRIVE

Aptly named DRVN, this term is probably more at home describing JVC itself rather than the range of products as JVC was actually driven to develop better amplifiers a few years ago by the other Japanese behemoths as they started to inch ahead in the power amplifier stakes. There are actually three different DRVN amplifiers within the range; the KS-AX3102 2-channel, the KS-AX3104 4-channel and the single channel KS-AX3101D. As you can see JVC has opted to keep the ridiculous-sized part number but the rest of the design is basically a ground up approach with a fresh new philosophy; rather than output as much power as humanly possible it has to offer an acceptable level of power for those on a tight budget. This means that it packs quite a nice punch but in all seriousness it's not designed for people wanting to bend their windscreens as they blow their hair around setting a world sound pressure record. The power output is rated at 250 watts continuous at 4-ohms while loading the amplifier down further to 2-ohms

will get you 400 watts, all with a total harmonic distortion of 0.08% too which is impressive.

JVC claims it can squeeze out 800 watts but this would probably be done with the bass boost cranked up and playing a straight sine wave and at full tilt. Strangely (for a monoblock) the unit is not 1-ohm stable but if you find yourself needing more power then get yourself a larger amplifier. Finding out other important specs such as damping factor which is vital to a subwoofer amplifier and to a lesser extent slew rate and signal to noise ratio was a little hard as JVC don't publish them anywhere. However when listening you get the impression the specs are up to par, and again, this is JVC not some dodgy backyard company so you can rest assured they're up to scratch.

The entire DRVN range has generated mixed reviews so far as their physical appearance goes but I have to admit I'm quite a fan. The entire black powder coated alloy chassis and heat-sink are one and the same in that the circuit board is screwed to the underside of the top plate. On the top of the case stretching from the left hand side there is a plastic grey arrow-shaped decorative panel that has the JVC logo, DRVN logo and a brief description of what the amplifier is just in case the single pair of speaker terminals on one side wasn't

a giveaway. On that same end as the speaker terminals are the power and earth terminals which can accept up to a 4-gauge fork in addition to the 40 ampere fuse. On the opposite end of the amplifier are limited controls which include a basic gain, 50Hz - 200Hz crossover and 0-12dB bass boost centered on 45Hz which in my opinion probably shouldn't be on an amplifier of this size. Strangely absent is a subsonic filter.

So far as signal goes there are both high and low level inputs in addition to a low level output allowing you to daisy chain a number of them together. It's good to see high level inputs on there as it means this amplifier will easily integrate into a factory system if someone is just looking to fill out the bottom end. All terminals are nickel plated which is the material of choice when corrosion is to be combated and gold is a little too expensive. The amplifier has quite a small footprint of only 222mm x 212mm x 50mm and overall is just a neatly packaged little unit. Another absentee which is unusual for a monoblock, especially one designed for factory integration, is a port for an external bass level remote control but then again when you consider the amplifiers price you cannot have everything. Oh, we haven't spoken about the asking price yet have we? Did you want to sit down before I tell you - they're only \$249; amazing value!

INTERIOR DESIGN

Turning the amplifier over and removing the steel bottom plate, you're greeted with a clean albeit somewhat bare design (JVC would call it spacious I guess). The design is clean though



and is very easy to follow. Just behind the inputs are the twin 3300uf 16v Chong stiffening capacitors and from here the now cleaner current flows to a small air core transformer for voltage step up. Once it's stepped up to operational voltage the power is then stored in two large 3300uf 50V Chong power capacitors and while it may not resemble the capacitor farm from some monoblocks we've seen, it is more than enough clean power to supply the ten MOSFET's lined up along the heat-sink, four on one side and six on the other. On the far end well away from the power handling components are the signal input and manipulation circuitry.

While the internal design won't conjure up images of Murcielago himself, you cannot help but appreciate the subtlety with which JVC has implemented the many successful design technologies from its more potent amplifier ranges in order to make the KS-AX3101D a clean but powerful design without charging you a whole heap for it.

As you might imagine; with a basic power amplifier like the KS-AX3101D it's nearly impossible to wire it up incorrectly. Reading English and having a decent power supply and earth are about the only prerequisites you require to have the unit in your car and working in mere minutes and ready to handle your subsonic requests. Just in case English is not your first language though, JVC has seen fit to include a whole swag of multi-lingual booklets in there so you really have no excuse for getting it wrong. When the amplifier is powered up an LED strip on the top arrow panel alights with a blue hue which actually adds aesthetically to the clean look of the unit.

MUSICAL SUBS

Perhaps I'm just getting old but when it came time to test I lined up a few smaller subwoofers as opposed to a wall of 15s. I'm starting to become quite attached to the idea of a small monoblock and equally small subwoofer ideology as opposed to the massive bass arrays of yesteryear. The first subwoofer up for a run was the über-efficient Crescendo Etude 2.10. The KS-AX3101D has no issues at all in powering this subwoofer and thanks to its lightweight motor the amp can certainly make the cone expel some serious amounts of air.

The next subwoofer in line was the Seas Lotus Reference SW250. This subwoofer has a slightly heavier motor and cone assembly and is argued to be among the best sound quality subwoofers in the world. The KS-AX3101D again moved the motor with precision and accuracy which is very pleasing to listen to, even

at excruciating levels only starting to reveal the limitations of its power output when pushed to excessive volumes. Now both of these subwoofers are 4-ohms drivers so I was expecting control and quality over output.

The third subwoofer I hooked up was a 2-ohms Morel Ultimo SC10 and this was done for a few reasons. Besides it also being a fantastic sound quality subwoofer, it has a 5.1-inch voice coil as the magnet is on the inside so moving this motor accurately is not easy for small amplifiers. As expected; the amplifier has little issue getting good quality thumping bass from the Ultimo at normal volumes, but due to the larger voice coil, it starts to distort and lose control a little at higher volume compared to when driving the Seas - it's still damn loud though.

Alright then, with the three sound quality subwoofers out of the way I spied one of my old Digital Designs 9910 in the corner and so I thought; why not? Now I'll add a disclaimer here in that the 9910 is a 20 kilogram sound pressure behemoth so while the poor KS-AX3101D was never going to get it close to bottoming out, it was well worth a shot - you'd be shocked just how much it did manage to get the cone moving!

CONCLUSION

So after recently reviewing JVC's KD-R926BT receiver and coming away most impressed, I was expecting quite a bit from the KS-AX3101D. I might just say that the KS-AX3101D did deliver everything it promised and if these latest DRVN range of amplifiers are any indicator of what we'll be seeing from JVC this year and beyond, then the future of high quality factory upgrades is looking both promising and most impressive. <<<

JVC KS-AX3101D MONOBLOCK AMPLIFIER

TYPE: Class-D monoblock

POWER RATING: 1 x 250 watts/1 x 400 watts (at 4/2-ohms at 14.4V) continuous

FEATURES: Adjustable crossover and bass boost

COST: \$249

CONTACT: Hagemeyer Brands Australia on 1300 728 225

WEB: www.jvc.com.au

- Good sound quality in a small package
- Solid control of suitable subwoofers
- Superb value

- Tougher loads can make it struggle

SIGNIFICANT OTHERS



Fusion's class-D CA-AM10900 monoblock offers similar power (300 watts/4-ohms) at a small price increase at \$299



Orion has the non class-D Cobalt C05001 monoblock with a tad less power at the next price point up of \$329