



# Yamaha A-S500

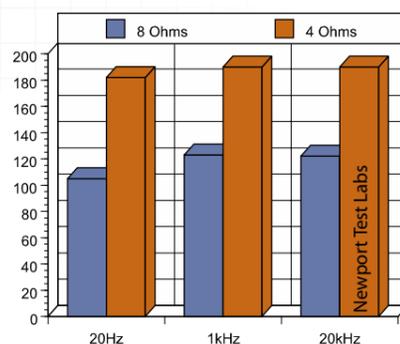
## INTEGRATED AMPLIFIER

I believe the word is 'sleeper'. OK, that sounds a bit cryptic. What I mean is that every so often—and not so often, to tell the truth—comes an audio component that's so good, yet so understated, that it flies under the radar of those who should know better. Yamaha's A-S500 integrated amplifier is just one of those components.

In hindsight, I should have guessed. Yamaha has an impressive history of building stand-out audio products that stretches back more than 50 years. And the fact that the larger, more expensive A-S700 has picked up hi-fi awards right around the world should have been a dead giveaway. But even so, who would have guessed the smaller and less expensive A-S500 would be an even-better amplifier?

### THE EQUIPMENT

Such is the popularity of home theatre that in recent years the major multinational manufacturers have concentrated most of



Power Output: Single channel driven into 8-ohm and 4-ohm non-inductive loads at 20Hz, 1kHz & 20kHz. [Yamaha A-S500]

their efforts on designing and manufacturing multi-channel home theatre receivers. So much so that many of them have either ceased production of two-channel amplifiers entirely, or have just one or two 'token' models in their range. Yamaha is doing the

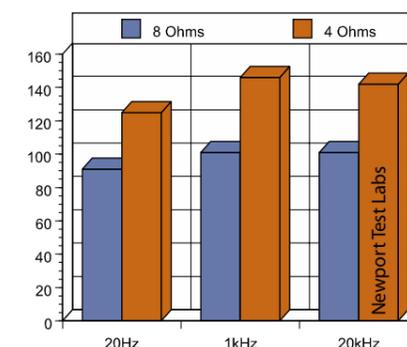
polar opposite, because not only does it have an extensive range—perhaps the most extensive of any manufacturer—of home theatre receivers (most of which are also award-winners), but it also has a good choice of five stereo integrated amplifiers, ranging from the top-of-the-line A-S2000 right down to the little A-S300, which is the model immediately below the A-S500 reviewed here.

The front panel of the A-S500 is clearly modelled on the 'look' of the top-line A-S2000, which itself was modelled on the amplifiers that made Yamaha a famous name in audio back in the 1970s. Those vertical bass, treble, balance and loudness control 'knobs' meant that early audiophiles could enter a hi-fi store and pick out Yamaha's amplifiers from dozens of otherwise 'look-alike' competitors from as far away as the front door. And back then, almost all amplifiers had silver front panels, so they really did look alike! (And, although Yamaha loaned us an amplifier with a black fascia for this

review, 'silver' models are still available.) Back in those days, the bass, treble, balance and loudness controls were made of solid aluminium, and had a click-stop action over their operating range. Fast-forward to 2013 and the knobs on the A-S500 are made from plastic, and have only a centre 'detent' at the 12'o'clock position.

If you're not familiar with Yamaha components, you might be wondering about the fact that the loudness control on the A-S500 is an adjustable rotary control, rather than just a single push-button, as on all other amplifiers that have a loudness control. It's because Yamaha implements the loudness function differently to all other manufacturers and, in my opinion, better. To understand why Yamaha has a better implementation, we need to quickly look at what a loudness control does. In essence, a loudness control is designed to compensate for the fact that the human ear's sensitivity to both low-frequency and high-frequency sounds diminishes as volume is reduced. Let's say, for example, that you are playing your system at a fairly loud volume, and a bass guitar is playing in unison with a lead guitar, but the lead is playing two octaves higher. You will hear the two performers as playing at exactly the same volume level. However, if you now turn the volume of your amplifier down low, and replay the same piece of music, you will perceive the lead guitar as seeming much louder than the bass guitar. What loudness controls do is try to 'restore' the tonal balance by increasing the volume level of low frequencies when the amplifier is playing at low volume, then automatically decreasing the volume as the playback level is increased. The beauty of Yamaha's version of the loudness control is two-fold. First, rather than just being 'on-off', it offers *variable* control, so you can adjust the exact compensation you want. Second, it works 'back-to-front', so that rather than boosting the low and high frequencies, it reduces the level of the midrange to achieve exactly the same end result. So much more elegant!

The A-S500 certainly isn't short of inputs. The electronic rotary source selector has positions for Line 1, Line 2, Line 3, CD, Tuner, Dock and Phono, this last position indicating that despite its budget price, the A-S500 has a phono stage. As for that 'Dock' position, Yamaha sells two different iPhone/iPod docks that can be connected to the A-S500.



Power Output: Both channels driven into 8-ohm and 4-ohm non-inductive loads at 20Hz, 1kHz and 20kHz. [Yamaha A-S500]

They are the YID-W10 wireless dock (\$249) and the YDS-12 (\$179). These docks allow you to easily use your iPhone or iPod as a music source and have the advantage over a simple front-panel connection that they will also simultaneously charge your iDevice.

I was pleased to see that Yamaha has seen fit to include a 'REC OUT' (Record Output) selector to the A-S500 to allow you to simultaneously be recording one input source (let's say your FM Tuner) to an external digital recorder, while you're listening to a completely different source (let's say your CD player). It will be particularly useful for those who want to use the A-S500's phono stage to help them transfer their collection of vinyl to some form of digital storage medium. However, in these modern times, there's another use for the REC OUT selector, which is that you could instead send the signal from the rear panel REC OUT output to another system in a different room (wirelessly would be the obvious choice!). This means you could use this functionality to have different music playing in different rooms.

Yamaha provides another multi-room playback capability in the form of switchable speaker outputs: Speakers A, Speakers B, and Speakers A+B, so you can have Speakers A in your main room, and Speakers B in some other room in your home. This particular functionality comes with a caveat, which is that if you want to play both pairs of speakers simultaneously (A+B) you will need to choose their impedance carefully, and also set a slider-switch on the rear panel of the A-S500 to match those impedances. Basically it means that if you want to operate two pairs of speakers simul-

aneously, both pairs should have a nominal impedance of 8Ω or higher.

The volume control on the A-S500 (also made of plastic) is motor-driven and also a 'stepper' type that is not continuously variable, but instead adjusts volume in 0.5dB increments (or decrements). You can turn it manually of course, but I suspect most people will choose to adjust volume using the sup-

### YAMAHA A-S500 INTEGRATED AMPLIFIER

**Brand:** Yamaha  
**Model:** A-S500  
**Category:** Integrated Amplifier  
**RRP:** \$799  
**Warranty:** Two Years  
**Distributor:** Yamaha Music Australia  
**Address:** Level 1, 99 Queensbridge St. Southbank VIC 3006  
**1300 739 411**  
**(03) 9693 5111**  
**avsales@gmx.yamaha.com**  
**au.yamaha.com**

- Great sound quality!
- High power, low distortion
- Auto power off
- Subwoofer Out
- Plastic knobs
- Fixed 240V power cord
- Loudness contour

### LAB REPORT

Readers interested in a full technical appraisal of the performance of the Yamaha A-S500 Integrated Amplifier should continue on and read the LABORATORY REPORT published on page 24. Readers should note that the results mentioned in the report, tabulated in performance charts and/or displayed using graphs and/or photographs should be construed as applying only to the specific sample tested.



Lab Report on page 24

plied remote control. If you use the remote, you'll also get access to a 'mute' function.

The 'Pure Direct' button will appeal to hi-fi purists, because it bypasses the tone, balance and loudness controls to ensure a straight signal path from the selected input to the power amplifier stage. Press it and you'll immediately enjoy reduced distortion, lesser phase shift, greater channel separation and lower noise levels.

Alongside the front-panel-mounted 6.5mm gold-plated headphone socket is a push-button power switch that wouldn't normally rate a mention except that behind Yamaha's unassuming power switch is a secret. That secret is that like many of Yamaha's newest products, the A-S500 has a 'Power Management' circuit that will automatically switch the A-S500 into its 'Stand-by' mode if it hasn't been used for more than 8 hours. And, when it does switch to Stand-by mode, Yamaha's Standby is particularly cost efficient, since it consumes less than 0.5W. I personally think that Power Management is a fantastic concept, but if you don't agree you

can switch it off via a slider switch on the rear panel.

Speaking of the rear panel, it has all the connections you'd expect to find, neatly laid out, plus one I was very surprised to see. The one I was surprised to see was a line output for a subwoofer. What's more, it's a line output fitted with a low-pass filter that turns over at 90Hz. This means, obviously, that if you were using only small main speakers, you could connect a powered subwoofer, but it also means that if you're using small main speakers, you could connect a mono power amplifier and a single large speaker to use as a 'super-woofer', rather than a subwoofer, to give subtle bass reinforcement between, say, 30Hz and 90Hz. It's a clever and potentially very useful inclusion.

Overall the rear panel was well laid out, and all the controls and operations clearly identified, though the writing is quite small and some might find it difficult to read. I personally found it difficult to identify, simply by looking at it, whether the speaker impedance switch was set to 'Low' or 'High'. In the

end, it was only by physically moving the switch that I was able to determine whether it was set correctly. (The switch should only be adjusted when the power is OFF!). One small point is that Yamaha provides a fixed 240V cable that's 1.5 metres long. I prefer manufacturers to provide standard 240V IEC sockets, so I can use a detachable cord of a length and colour I prefer (as a reviewer, it also makes it easier to install and remove components from my system). My special requirements notwithstanding, I guess you could make an argument for having a fixed power cord.

#### REMOTE CONTROL

The remote control (aluminium colour only, no black version is available) is a multi-component type that will operate other Yamaha components in your system. On the A-S500, it controls volume and muting, as mentioned previously, but you can also select source input and switch the amplifier between 'Standby' and 'On.' It uses two AA batteries, which are easy to replace, and the batteries that come standard with the remote are of good-quality but have standard chemistry, so I'd still recommend replacing them with a pair of brand-name, alkaline (or lithium) batteries. The manual says the remote operates only over a 60° angle in front of the unit, and up to a distance of 6 metres, but I found that it still operated reliably at more extreme angles and at greater distances.

#### IN USE AND LISTENING SESSIONS

You'll find it easy to install the A-S500, even if you've never previously installed a hi-fi amplifier. The instructions in Yamaha's manual are good, the diagrams are clear, and the terminals on the rear panel are not crowded together, so you'll have plenty of room for all the wires, even if you use all of the A-S500's many features and facilities. I'd suggest not worrying much about setting the speaker selector switch, because the A-S500 has sophisticated protection circuitry inside that will protect the amplifier if you choose an incorrect setting. And if you don't know the impedance of your speakers, and you're only using a single pair, I'd recommend using the 'HIGH' position and if you're using two pairs of speakers, the LOW position. Either way, if the amplifier's protection circuit cuts in, you'll immediately know to use the other switch position! I used the HIGH position exclusively when trialling the A-S500 with a number of different loudspeakers in order to write this review, and I thought the A-S500 operated equally well with all the models I tried, and the protection circuit didn't ever cut in, even when I played at outrageously high volume levels.

And you'll certainly be able to achieve 'outrageously high volume levels' (if you

so choose) with the A-S500, because it's a powerful amplifier, as I first determined with my own ears, and later confirmed when the test results came back from *Newport Test Labs* (see page 24). In fact, after only a few days with the A-S500, I'd guesstimated its output at 100-watts per channel rather than the 85-watts per channel claimed by Yamaha, so I was rather gratified to see this confirmed by the laboratory test results, which put output at more than 100-watts continuous, both channels driven, at all except the very lowest frequencies, where it delivered 91-watts (but exceeded 100-watts when only a single channel was driven). And despite being run at very high volume levels for considerable periods of time, in a non-air-conditioned house with outside temperatures at over 30°, the exterior of the A-S500 remained cool to the touch. (And even if the temperature does get too high, once again, Yamaha's protection circuit will cut in to ensure you cannot harm the amplifier.)

I found that the Yamaha A-S500 delivers its power smoothly and effortlessly, without any sense of strain (or any noisy fans, either, because there are no fans... just good old-fashioned passive heatsinking). It's particularly good at transients. I could be listening to already-loud music, which I'd start to imagine might be taxing the A-S500's power capabilities, and then all of a sudden a transient of one type or another—perhaps a drum thwack—would leap surprisingly from the speakers to prove me wrong: making it abundantly evident that the A-S500 had been playing possum and had plenty of power in reserve all the time. Even better, there was no 'ripple effect' after the transient, so once the sound had gone, it was gone, with no aural evidence remaining to show it had ever existed.

Speaking of power, I did discover one hiccup with the design of the Yamaha A-S500, which is that if you are using the loudness control, depending on the settings of the loudness control and the volume control,

you may find that if you turn the Pure Direct switch on, you're suddenly blasting your speakers at very high volume level. If this happens, quickly press the Pure Direct button again (to prevent possible damage to your speakers) then turn the loudness control off and the volume down before again pressing the Pure Direct button. Although this is annoying, it's unfortunately an unavoidable side-effect if you want the convenience of having both a usefully adjustable loudness control and a means of defeating all the tone control circuitry. In practise, I'd suggest that to avoid this problem you always rotate the loudness control back to the 12 o'clock position whenever you stop listening to music.

#### Why isn't this amplifier a cult favourite, whispered about with hushed reverence by those 'in the know'?

Distortion was low... so low in fact, that I could hear no amplifier distortion at all, no matter whether I was listening intently for 'grain' when the amplifier was operating at whisper-quiet levels, or listening for straight-out harmonic distortion when the A-S500 was operating at normal to high levels. And speaking of whisper-quiet, the A-S500 was more than whisper-quiet... it was to all intents and purposes noiseless, with absolutely no low-frequency hum audible at any listening level I tried, and certainly no high-frequency hiss audible, even if I pressed my ear close up against a tweeter.

My auditions handily coincided with the release of the CD 'Healing Stone' (The Best of Yothu Yindi) which in turn was released to coincide with Yothu Yindi's induction into the ARIA Hall of Fame. It includes a new song (*Healing Stone*) for Yothu Yindi that was co-written by founding member, lead singer and

guitarist Mandayuy Yunupingu and INXS's Andrew Farriss. It's a great album, full of great songs, but after lots of listening, I'd have to say that my favourite track is the intro track, *Treaty* (co-written by Paul Kelly), which I think was also the band's most popular song/track. If you're a Yothu Yindi fan, the version on this album is the radio mix. I won't give a full track list, but as you'd expect, *Tribal Voice* and *Djapana* (Radio Mix) are amongst the 17 tracks on this excellent album (though every time *Djapana* kicks off, I experience aural *déjà vu*, thinking I'm hearing the intro to Sherbet's far more famous track *Howzat*). Yothu Yindi fans should buy 'Healing Stone' for completeness, but everyone else should buy it for the great music and the slice of Australian music history! I turned the volume on the Yamaha A-S500 up mightily high, and the amp was easily up to the challenge of reproducing the incredible dynamics, unravelling the complexities of the rhythms, and clarifying the at-times confusing melds of traditional Aboriginal instruments and modern electronic instruments, as well as the myriad voices and utterances. Fantastic sound!

#### CONCLUSION

As you've probably gathered, I was very impressed by Yamaha's A-S500. Seriously impressed. And I was absolutely floored by the price. Why isn't this amplifier a cult favourite, whispered about with hushed reverence by those 'in the know'? But then it hit me. Perhaps Yamaha has set the RRP for this amplifier too low! Prices of all hi-fi components have rocketed skywards in recent years, the result of which is that many people might well think that an amplifier selling for less than a grand (or two!) could not deliver such a high level of performance for the money Yamaha is asking. So my hot tip of the year is that if you're in the market for a high-powered, high performance, *audiophile-quality* integrated amplifier, you need look no further!  **greg borrowman**

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