



# Vinyl freakshow

+

**Yamaha**  
MusicCast VINYL 500  
networked turntable

Part of Yamaha's return to vinyl, this deck stands out for its inclusion of Spotify, Wi-Fi, and all manner of networking and streaming. Say wah?

## SUMMARY

**Yamaha Musiccast VINYL 500**  
Price: \$899

- + Up with price-comparable rivals as a turntable
- + Does the whole MusicCast streaming/multiroom thing
- + Will amaze your friends
- Have to switch between phono and line-level outputs
- Do you need such a thing?

**Y**es, ladies and gentlemen, roll up roll up, come see this freak of the hi-fi world — a turntable that does Tidal... and Spotify... and internet radio and high-res network streaming. A turntable that has AirPlay and Bluetooth and Wi-Fi and Ethernet. You can plug it into an amplifier, but you can equally send its output wirelessly to speakers all around the home, and have everything under app control (except, er, changing the record). All this, and it plays vinyl too. It's the wonder of the age!

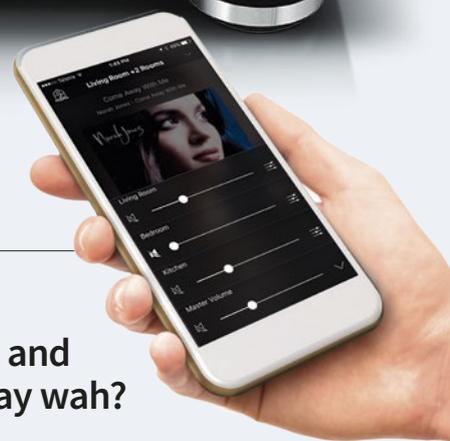
## Equipment

So, the secret weapon here is Yamaha's MusicCast streaming and multiroom platform. The company has been exceedingly busy with MusicCast in recent

years. First there were wireless speakers, and a soundbar, then it was added into their premium AV receivers and then hi-fi amplifiers... and then to lower-level amps and receivers. Yamaha even put one into a piano from its musical instrument division.

So when the company returned to making turntables late last year, led by the \$8999 model from its premium hi-fi 5000 Series, it's perhaps no surprise that someone in the marketing department would have piped up 'Let's put MusicCast inside a turntable!'

So they have. This is a turntable which has a fully-equipped streaming source hidden within. For some of these sources you could even use voice control, since MusicCast is now Alexa-controllable (though it seems Alexa has not yet developed the skill set required for flipping over LPs). You can connect it conventionally to





**Pick your output**  
 There are two sets of RCA output sockets on the VINYL 500. One plays at phono level, so you can use an external phono stage, either standalone or behind the phono input on your amplifier. But to receive the streaming wonders of MusicCast, you have to use the line out sockets, flicking the switch to do so. Also unusual for a turntable is the Ethernet socket to get the turntable networked (there's also Wi-Fi, and Bluetooth, and AirPlay...).

an amplifier, or it can send the sound over Wi-Fi to a MusicCast speaker or receiver or amplifier. It can even pair with and stream to any Bluetooth speaker, although this 'Bluetooth out' ability was released in a firmware update shortly after our time with the Vinyl 500, so we didn't get to try it.

Impressively, you wouldn't guess it was loaded with high tech just by looking at it. It presents as an immediately eye-pleasing turntable, tilting at the high-end with its gloss black finish — not quite the full Yamaha high-end piano gloss but nice and shiny nevertheless. Viewed from the front everything is either black or silver or (in the case of the cartridge) white, while the front of the platter has four silver selector buttons with amber lights above each, except for one with a green LED which comes on during set-up and stays on once the unit is connected to Wi-Fi.

From the left the first three of these buttons control power on/off, speed selection (33½ versus 45rpm), and play/stop — this is not an automatic turntable so you'll be lifting the arm into place manually (you can lower it with the arm-lift, if you deem yourself clumsy or nervous).

The arm itself is straight and quite short at 223.5mm effective length, and (unlike the mildly controversial GT-5000 high-end turntable) there is an anti-skating force applied. The cartridge is a white Audio-Technica moving-magnet design,

unspecified though we gather the recommended replacement stylus is the ATN3600L, which will set you back a mere \$20.

The fourth switch on the platter is marked both 'Connect' and 'Source'. 'Connect' is part of the set-up procedure for MusicCast, while 'Source' indicates that pressing the button shuttles through the additional sources available from this turntable, with the LED changing colour to indicate your selection — white for vinyl, pink for AirPlay, blue for Bluetooth streaming to the turntable, and green for other types of network streaming. If you forget the colours you can tell when you've selected vinyl because the light on the speed control turns orange (if you're on 33½rpm anyway).

### Setting up

There are a good many bits separate in the box — two hinges, the counter-weight, the headshell, the power pack and adaptor, a cable, the platter and the mat. We have long since learnt that although most manuals instruct you to put the cables in last, you should do it first, so you don't have to move the turntable around after spending time carefully setting things up.

And here you'll need to make a choice, as the Vinyl 500 offers two different sets of output sockets (in addition to its ability to stream). One pair of sockets is at phono level, for playing into a phono stage, but the Vinyl 500 also has its own phono stage so the second output is at line level for playing into any amplifier input. But there is one catch — the MusicCast abilities can

only be played from the line-level outputs. If you use the phono outputs, there's no smart stuff at all. And you can't use both. As we'll see, there is good reason to use the phono-level output — if you have a good phono stage the sound from vinyl is better that way. But then you'll have to keep reaching round and flicking the rear selector switch (see picture above) to change outputs. It's a great pity Yamaha didn't work out a way for both outputs to be active simultaneously.

This is a belt-drive turntable, and the belt arrives already in place around the inner rim of the platter. This is a similar system to that used on some other turntables around this price from brands including audio-technica and Sony, though here without the piece of red tape which allows you to pull the belt easily into place over the pulley which is visible beneath the platter. Yamaha's manual suggests using a finger to hook the belt into position. A finger! We used a chopstick (nothing sharp, obviously) to hook the belt into position, although we confess to a light fingering when lifting the belt off the inner rim in the first place.

"Place the platter sheet" was the next instruction. By referring to the diagrams, we discovered this means the felt mat.

Also different, the counterweight seemed to lock into a position halfway as we slid it up the tone arm. We locked the headshell in as well, noting very little rotational 'give' available to spoil the ride, as it were.

We like dust-cover lids, for acoustic isolation as well as dust, so we put the two supplied hinges on the turntable, then tried to insert the lid. No. Put the hinges onto the lid first, then insert the lid into the turntable slots. Yes. The dust cover stays up on its own, and needs only 7cm of space behind the turntable for it to open fully. It doesn't do a toilet-like soft close, but the rubber buffers at the front prevent it slamming, though they also leave a gap of a couple of millimetres all around, preventing a fuller acoustic or dust seal.

The manual is pleasingly clear through the set-up stages, and while it doesn't say to remove the transport twisty holding the arm in place, we suspect even beginners would guess to remove it soon enough.

With the headshell attached, it turned out that the counter-weight's central lock position wasn't quite right for the required balance, and eventually we made enough micromovements of the screw to have the arm absolutely poised between up and down. The applied cartridge weight is a fairly hefty 3.5g, so we dialled that in, and the same for the antiskating wheel, which is small but very readable.

## Performance

You could operate the turntable conventionally using the buttonry previously described, but this would be to miss the bonus MusicCast madness. So download the app — yes, an app for your turntable! — and get your deck connected.

We decided to network the turntable with Wi-Fi rather than Ethernet, given its wirelessness is half the point, so we went through the now-familiar MusicCast set-up procedure. We're so familiar with it, indeed, that we didn't panic when the process failed somewhere near the end [on the third connection of two sets of connections that the app makes]. Our experience with MusicCast is that third time is the charm, and sometimes we make a cup of tea between attempts two and three, just to give things extra time to handshake. Here it connected fourth time (just before we were going to move it to a stronger Wi-Fi location), and thereafter never skipped a packet. Within moments we were in the MusicCast app and off streaming Spotify



### Press for action

With abilities beyond those of a normal turntable, there are additional buttons and lights, including a 'Connect' button to start MusicCast pairings, and 'Source' to choose between vinyl and other inputs.

### Detachable headshell

The audio-technica cartridge comes mounted in a detached headshell ready to attach.

from the internet to the turntable and out into our amplifier and speakers. Modern miracle!

The MusicCast app screen (see overleaf) makes clear the available options of the three music services — Deezer and Tidal are embedded within the MusicCast app, while Spotify spits you out into your Spotify app, from which you select the turntable as the receiving device.

AirPlay allows network streaming from an iOS device or a Mac computer (or via Roon), while Bluetooth allows point-to-point streaming from any Bluetooth-enabled phone or computer.

'Server' will scan the network for any DLNA/UPnP folder shares, and offer them for playback. The turntable will stream up to 24-bit/192kHz PCM as WAV, FLAC, AIFF or Apple Lossless, and DSD at 2.8, 5.6 or 11.2MHz, as well as playing MP3, AAC and WMA files.

'Net radio' offers the usual wealth of internet radio stations and podcasts by location and genre.

MusicCast gets regular updates to ensure ongoing compatibility and sometimes new abilities. One we hadn't noticed before is the ability to set 'Room Presets' for rapid access to a particular source, volume, and a group of linked rooms if you have a multiroom system. 'Linked' rooms play the same music as the room to which they're linked, so this is how you get to send your turntable's LP playback through to the whole home, surely a dream for vinyl lovers who — far from being the sad and lonely middle-aged men suggested by one recent survey — are really wide-ranging gregarious types keen to share their vinyl treasures as widely as possible, so long as nobody else gets to touch their actual records.

All this new technology would come to naught were the turntable itself a stinker, of



course. But this is not the case. Having been plugged up for streaming we listened to vinyl first through the line-level outputs direct into our amplifier, noting that this also saved us a valuable input on an amp which has only two analogue inputs, neither of which is a phono stage. (Normally one is used for a turntable and phono stage, the other for a streaming preamplifier. Now the Yamaha could use one input to do both tasks.)

Not only that, this is a nice disc player. Our colleagues at *Australian Hi-Fi magazine* gave it a full benchtest, finding that speed stability measured extremely well, wow and flutter were low. And from the first LP the Vinyl 500 was clearly both quiet in operation and musical in playback. Clannad's velveteen echoic tones came flooding forth as we span side two of the 'Magical Ring' LP, and by the end we were truly impressed by both the solidity and detail of sound, and the tone too; even on the inner track Maire Brennan's holy tones were rich and fluid. The fact this was through the built-in phono stage impressed us still further; most built-ins at this price do not deliver such smooth and rich results, or can't go full tilt loud without their limitations being audible.

You don't get much more dynamic a track than the olde English folk-prog wonders of Gryphon's *Spring Song* on their 1977 LP 'Treason', and after turning up the quiet piano bits — still almost no disc noise audible — we were joyfully blasted by the subsequent rockier sections. It delivered a huge sound for the giant drums on the final track on side one, *Flash in the Pantry*.

Having said that, there are limits to its resolving powers, as would be expected at the price. We occasionally heard distortion at the very edges of the soundfield, and comparing with turntables up at the \$1500 price point there was a distinct flattening of sound, reducing the openness and space underlying the recording of Keith Jarrett's trio on *Flying Pt 1*, for example.

And this was slightly more pronounced when listening through the line-level outputs using the Yamaha's built-in phono stage, compared with even a relatively modest dedicated separate phono stage using the phono-level outputs. Another example of this was Pink Floyd's *Pigs on the Wing pt 2* from 'Animals', where the sibilance on Waters' vocal was significantly more prominent from the built-in stage than through the external box. (From the much pricier turntables, this sibilance wasn't evident at all.) So the Yamaha's line-level output will certainly service general listening with enjoyable results, but if you want the best results from the Vinyl 500 through a decent system, it's worth considering at least a modest phono stage, though that then complicates the wiring, as noted above.

Compared directly against similarly-priced turntables it was certainly competitive for musicality, though Sony's PS-HX500 held complex pieces in check a little better, while Audio-Technica's AT-LP3 (actually a rather cheaper option) was able to match it in nearly all regards. But these lack the Yamaha's magical powers, of course, so the overall value equation is held roughly equal or, depending on your preferences, in the Yamaha's favour.

One instructions may contain confusion for newbies. "If you're playing a 45 rpm record," advises the manual, "use the included 45 rpm adaptor". Well, only if the centres are punched out, which we reckon is pretty rare... those released for jukebox use, certainly, and quite a number of my collection from the early 70s which went through a slot-loading in-car turntable (no, really) requiring you to punch out the centres. Plastic spiders were ever thereafter at a premium in our family home. But should you know what a single is, be assured that most of them will play without the need for any adaptation other than selecting the 45rpm setting on the second of the four selector switches.

One thing missing: there seems to be no volume control in the app to govern the turntable level.



One curious and minor glitch — while the turntable was playing, we had to restart the MusicCast app, and when we used this to reselect the already playing vinyl, the turntable ground to a halt, making an almost comedic slow-down noise through the speakers. To restart it we had to walk over (walk!) and press the start button again.

### Conclusion

So think of the Vinyl 500 as two separate things. First it's a belt-drive turntable, and one that delivers both an impressive aesthetic and solid performance for the price. But secondly there's the bonus of the MusicCast module hidden away, streaming in and out and allowing Spotify and other music services to emerge from the turntable outputs. The output switching can be a bit restrictive if you're using a phono stage to get the very best available vinyl sound, but otherwise we loved it — and, of course, have already given it a Sound+Image Award (see last issue) for its radical abilities. — Jez Ford

### SPECS

**Yamaha VINYL 500 (TT-N503)** \$899

**Turntable:** belt-drive, DC motor

**Speed:** 33 $\frac{1}{3}$ rpm, 45rpm

**Tonearm:** 223.5mm static balance, straight

**Cartridge:** audio-technica moving magnet

**Quoted wow and flutter:** 0.2%

**Outputs:** phono-level RCA (turntable only); line-level RCA (turntable & MusicCast services)

**Unusual extras:** MusicCast streaming & multiroom platform, Ethernet, Wi-Fi, AirPlay, Bluetooth in/out

**Dimensions:** 450 x 136 x 368mm

**Weight:** 5.7kg

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▲ One possible fully wireless playback solution, the VINYL 500 with a pair of \$349 MusicCast 20 wireless speakers.