

# Genelec

## 8341A SAM monitors & GLM User Kit

I didn't think it would be appropriate to have *Tape Op's* journalistic integrity called into question if my review only included the phrase "HOLY SHIT!" over and over again, so it looks like I'll have to write more than that for a proper review – but let me unequivocally state here that this is my conclusion of the *Genelec 8341 Smart Active Monitors*. For you TL;DR folks; go buy them NOW!

Genelec created their first active studio monitor in 1978 with the S30 model. With the 103x Series in the late '80s, they created a line of monitors that became ubiquitous in studios around the world, both on meter bridges and in soffits. There was a reason you would likely see a pair of Genelec 1031s or 1032s along with Yamaha NS-10s on top of the console in many commercial studios; these were loud, accurate monitors that gained a bit of a mistaken reputation for making things "sound better than they actually were." Fast-forward to 2004, when Genelec introduced the 8000 Series with a cast aluminum enclosure that featured curved lines, no hard edges on the cabinet, and waveguides molded into the enclosure offering minimum diffraction due to no hard edges. The 8000 Series' cabinets heralded a new era, from which nearly all subsequent Genelec models have been derived.

One of the most recent lines to benefit from this revolutionary cabinet style are "The Ones," originally introduced in 2014 with the 8351 model, and now including the smaller 8341 (subject of this review) and 8331 models. These are all 3-way designs featuring dual-concentric/coaxial mid- and high-frequency drivers, with two oval woofers at the tops and bottoms of the cabinets. These bass drivers are entirely hidden from view, which gives the series a striking look unlike any other studio monitor – rather than having the LF drivers on the face of the monitor, the entire front surface is a waveguide for the two higher drivers while the lows are dispersed via a rear reflex port and thin slots at the top and bottom of the front baffle. Because of this unique arrangement of the drivers, the monitors in The Ones series can be mounted horizontally or vertically with either orientation providing the same balance of sound emanating off the front of the monitor. To aid in mounting, Genelec's proprietary Iso-Pod rubber feet have now become components of most of their nearfield speakers. These can be easily moved from the bottom of the monitor to the side by using a couple of screws on the back of the cabinet, allowing isolation from the mounting surface in either orientation – an incredibly practical design!

The power amp components of the 8341 are 250 W for the two low-frequency drivers and two 150 W amps for the mid- and high-frequency drivers respectively – I found these to be incredibly clean amplifiers that offer enormous headroom. Rear inputs are via analog and AES digital, both on XLR connectors. There's also pair of Ethernet ports; more on this in a moment.

In the past, Genelec has included DIP switches on many of their monitors to allow for shaping the response of the speaker to the room, and while those are also included on the 8341, where the "Smart Active" designator in the full name of the monitors and series truly comes into play is when partnering the monitors with Genelec's *GLM* (Genelec Loudspeaker Manager) *User Kit*. The *GLM* system is what takes these already extraordinary monitors to an entirely new level. The kit consists of a network adaptor that sits on your desktop/console that connects to your computer via USB with a calibrated omnidirectional microphone with mic holder that connects to the *GLM* network adaptor. From the box, you connect an included Ethernet cable to one monitor, and then

chain another cable from that monitor to the second (and third, and so on, including subwoofers – up to 45 monitors). This creates a network for calibrating the monitors to your room with up to 20 EQ points of correction for the 8341 (other models have different numbers of EQ points), time-of-flight delay and level matching between monitors, plus phase, EQ, and level alignment with any SAM subwoofer. All of this is controlled via the *GLM* application on your Mac or PC, and, once analyzed, the settings can be stored to the internal memory of the monitors. The analysis can be single- or multi-point, with the multi-point analysis averaging measurements from four positions around and including the central listening spot. Using this system, one could conceivably make additional calibrations on the client couch, at the back of the room, or anywhere else to be selected when needed. The 8341s, like the 8331s have two LF shelf filters, two HF shelf filters, and 16 parametric notch filters. The calibration algorithm typically stops at ten. Any unused filters can be assigned by the user.

There are a host of other features in the *GLM* app, but that is meaningless if the monitors don't sound good or aren't enjoyable to work on. Luckily, as I mentioned in my ultra-classy opening, the 8341s are absolutely incredible! I've been working on them for a few months now (paired with a Genelec 7360 SAM sub – 4-way calibrated system, baby!), and I've never had mixes translate as consistently. Ear fatigue is a non-issue with these monitors, and they have such a smooth, even response at all volume levels. I can work at extremely quiet levels with the assurance that I won't be missing out on any detail. Of course, when it's time to push the 8341s for the "client test," they never feel like they are coming close to maxing out their available headroom.

For the last 15 years or so, my favorite recording to use as a test listen on any new monitors or in a control room I'm unfamiliar with, has been John Vanderslice's [*Tape Op* #10] *Pixel Revolt* album; recorded and mixed by Scott Solter [#67] (genius!). It's a hugely dynamic recording with lots of Moog bass to test/stress the low drivers, and gorgeous vocals and guitars. Hearing that record on the 8341s was like hearing it for the first time – more stunning than ever and with a new-found depth that makes it feel like you can reach into the mix. I know that may read as some kind of "audiophile nonsense," but to me it's true. This same kind of feeling holds when working on mixes myself (not nearly as good as Scott's...); I feel like I'm using less processing (unless called for) because I can really hear the fundamental core of all sounds better than with any other monitors I've used. Reverbs tail away to infinity, noises and spurious pops/clicks are easy to detect (I've had issues hearing these kinds of problems on other monitors in the past), and music just sounds more musical! I enjoy listening to music on the 8341s as much as I like working on them, and that's unusual for me. I generally liken studio monitors to a tool rather than something to be embraced for pleasurable listening, but these perfectly fit the bill in both instances.

With a street price of over \$6000, they aren't inexpensive (the 7360 sub adds another \$2500 to that). But if, like me, you think of your monitors as the single most important piece of hardware in your studio that need to be trusted and relied upon on to tell you the truth about what you are recording and mixing, the price begins to feel a little less painful. If you can't accurately hear what your microphones and preamps and processing are doing to your music, how can you trust what you are listening to? I honestly wish everyone could hear and use the Genelec 8341s – they deserve to be the new standard.

(8341s \$2950/each street, *GLM* kit: \$299 direct; genelec.com) –Don Gunn <dongunn.com>

# Avantone Pro

## CLA-10

### Passive Studio Monitor System

### CLA-200 Studio Reference Amplifier

Yamaha NS-10s (along with other equipment, like the Shure SM57) have undoubtedly been among the most omnipresent tools of our trade in the past three decades. Most professional engineers fall pretty heavily on one side or the other, the two sides being: 1. "I can't make a record without them," or; 2. "I can't stand them. Why would anyone want to listen to those all day?" I have remained ambivalent, but if pressed will admit to leaning towards the latter camp, having only worked on them with any regularity during the early 2000s in a studio that had a pair. Somehow I never felt compelled to purchase a set of my own, and the many engineers coming through the door at Figure 8 Recording seem to be in sync with my viewpoint – there's been a pair in the corner for years that I've only seen set up a couple of times.

I decided to try and take this opportunity to figure out why people love them so much, and why I never have. I mean, obviously I get the concept: bringing the "real world" into the studio environment, which otherwise might contain only super-expensive speaker systems that don't give a good sense of what most people will be hearing at home, or in the car, or in earbuds on the train. I have put lots of effort over the years into finding (and properly setting up) speakers that provide maximum translatability, but ones that also give me some amount of listening pleasure during hours and hours of work. I found that whenever I had Yamaha NS-10s as a secondary pair, switching over to them was simply too much of a bummer to want to stay on them. The low end disappearing, the lower midrange getting woofy, the upper midrange getting harsh, and the high end sounding pinched and crispy – I could never remain working on them long enough to get a feel for how their sound could influence my mix decisions.

All of that gives us the backdrop for where I was when I took receipt of the *CLA-10s*, Avantone Pro's take on the long discontinued and extremely popular Yamaha NS-10. They bear the initials (and chicken-scratch signature) of Chris Lord-Alge, certainly one of the most well-known and prolific mix engineers on the planet. They look very much like their inspirational antecedents, from the two little black drippy lobes on the white woofer cone to the car-dashboard tweeter grille to the black wood veneer. The main difference in construction, as Avantone states clearly on their website, is that the *CLA-10* woofer cones are made of pressed pulp instead of an overlapped and glued flat paper sheet like those of the originals. Some have argued that the woofer construction was a huge part of the sound of the original Yamaha NS-10, since it damped the movement of the cone in a unique and effective way, but Avantone claims that *their* woofer has identical tonal and response characteristics to the original despite the construction variance – a claim which, of course, I had to put to the test. Remember how I mentioned that Figure 8 has a pair of Yamaha NS-10s collecting dust in the corner? I dusted them off and brought them up to my new spot in the Catskills, Spillway Sound, along with the *CLA-10s* and the *CLA-200* power amplifier, which Avantone was kind enough to also lend me to review. I spent the next couple of months swapping in and out the two white-coned sets with my Bag End M6s [*Tape Op* #50], which have always been my absolute favorite passive "real world" monitors since I bought them in 2005. I pair the M6s with a Bag End subwoofer, because they start dropping off around 60 Hz, which is right around where the *CLA-10s* drop off also, according to

their spec sheet. I did use the *CLA-10s* for a while with the subwoofer, which (I know) kind of defeats the point, but I just can't work for long without hearing what's going on "down there." Admittedly, turning off the sub is good for a quick check to make sure you can still hear the kick and bass elements doing their job above 60 Hz, but it's just too easy to overdo the subs in a mix if you don't *ever* hear them. Case in point, I was recording a synth bass a couple of days ago and forgot I had switched over to the *CLA-10s* with no sub. I spent a while tweaking the patch and sheepishly smiling at the client, like, "Sorry, heh heh, this synth usually sounds really marvelous, not quite sure what's wrong." Then I realized what was going on and switched back over, and immediately the bass synth rattled our guts, sounding as badass as I had been promising. Just an anecdote to warn you: Don't expect to hear the lower couple of octaves on these speakers without some augmentation.

But enough about the low end, since that's really not what the *CLA-10* is there for. It's all about the midrange, right? Proponents of the Yamaha NS-10s claim that if you get the midrange right on them, it'll sound good on any system. On a technical level, this likely has to do with a better-than-average transient and time domain response (nerd alert!), but in practice it allows you to focus on the vocals, guitars, snare, horns, keys, etc., and really get them dialed in to work alongside each other. If you have any elements in your mix that are tending toward harsh, you will know it immediately. The *CLA-10s* delivered in that regard, to be sure. I have to be honest and say that I really didn't like the upper midrange when I started using them, but over time I have grown to understand it in a way that is most certainly helping me make better mix decisions. (Also, I felt like the speakers "broke in" and mellowed just a bit over a few weeks of usage, which could be expected.)

Having said all of that, they did sound different than the Yamaha NS-10Ms I compared them to. The ones I had were the vertical pre-"studio"/pre-"pro" models with the grille holes (check the Yamaha NS-10 Wikipedia page for the full lineage). The Yamaha's had a fair amount more treble (as that model is known for), a fair amount less in the 2 to 3 kHz range, and more details in the lo mids. Being somewhere between 30 to 40 years old, who knows if they are anywhere near factory spec nowadays, but I actually thought they sounded pretty pleasing over longer listening periods, much to my surprise. In my opinion, the *CLA-10s* sounded a little thinner and more aggressive by comparison. Switching power amps clearly made a difference. The *CLA-10s* (and the other speakers, to a smaller extent) sounded noticeably better through the *CLA-200* power amp than through my Crown XLI800. There was a hair better transient response through the *CLA-200*, evident on the ping of a ride cymbal, for example, but interestingly the low end is where I really heard the difference. The impact of the kick in my chest really came into focus, where I had been missing it through the Crown amplifier. The *CLA-200*, which has the same power rating as the Crown, is almost exactly three times the price, so I'd expect better performance out of it, and it delivered.

One more thing about the *CLA-200*, and how it matches up with the *CLA-10s*: The *CLA-10s* are *loud* speakers, quite a bit louder than either of the other pairs I compared them to – they spec out 6 to 9 dB higher sensitivity-wise than the other sets. In practice, this means that you need to attenuate the signal somewhere if you want to quickly switch between the pairs. This happened to work out well, because when I had the *CLA-200* above about 3 o'clock on its output controls there was a discernible noise floor coming out of the *CLA-10s*, which

is something I'm not used to hearing with modern amplifier/speaker combinations. Backing the *CLA-200* down I found a place where I could easily A/B with comparable level, without hearing white noise emanating from the *CLA-10s* (not a problem, just a note). Another byproduct of the *CLA-10s* being loud is that even at maximally robust listening levels – way above where I would leave the speakers for extended mixing – the big, honking VU meters on the *CLA-200s* barely move, which make them feel a bit of form-over-function to me. I'd prefer a less-attractive meter that operated in a more useful range, personally, but okay, they *do* look cool – and the little hiccups of movement in the -20 dB range of the meter clued me in that this amplifier has tons of headroom.

All in all, I'm feeling my position on Yamaha NS-10s start to shift a little after forcing myself to work on them for a chunk of time over the past couple months, although I wouldn't say that I'm a full convert yet. As for the *CLA-10s*, I do have some questions about how closely they match the original Yamaha NS-10Ms, but – to be fair – I only compared them to one set of decades-old speakers. I'm absolutely sure that if I'd had a few sets of Yamaha NS-10s they would all sound different from each other. As usual, when comparing a new version of an item to what it's trying to emulate, I take the concept of exact matching with a grain of salt, and at some point try to just evaluate the equipment on its own merits. My takeaway is that the *CLA-10s* are useful speakers, made with a high level of attention to detail, and they have been an important component of getting the mixes I've done in my new studio to translate better to other systems. I also like the robust connectors on the rear terminal plate, which can accept either bare wire or banana plugs – make sure you still screw them down if you're using bananas though; it took me a few minutes to track an infuriating rattle down to a loose binding post cap! The price is fair given the build quality, especially considering it's about the middle of the range for a used pair of Yamaha NS-10s, which aren't necessarily matched, and don't come with a warranty. I do feel like maybe there's a bit of a tax included for having such a superstar mix engineer's stamp on the *CLA-10s*, but so be it. As I'm leaning towards purchasing them, I'm sure I won't be the only one putting a little black gaffer's tape over the signature on the faceplate's logo, which I find pretty cheesy.

If you think these might be the speakers for you, but you'd like to save yourself \$500, an active version (*CLA-10A*) became available during my review period for \$999 a pair. These sport a knob labeled Variable Tissue Paper Control to change the tweeter's response to simulate the different models of Yamaha NS-10, some of which were reportedly made so that Bob Clearmountain [*Tape Op* #129, 84] didn't have to keep hanging tissue paper in front of his Yamaha NS-10's tweeters. I'll let you use your preferred search engine for the rest of that story, and, while you're at it, look for the great Bob Hodas' extremely thorough article for *Recording Engineer/Producer* magazine in 1986 about how different brands and ply-counts of tissue paper have varying affects on the tweeters' response. His conclusion is basically, "Um, we have a better tool for this, guys, it's called an equalizer." As far as technical acoustics reports go, it's pure comedy gold. (*CLA-10s* \$699 MSRP/pair, *CLA-200* \$799 MSRP; *avantonepro.com*)

-Eli Crews <[elicrews.com](mailto:elicrews.com)>

## Special Tape Op Online Bonus Feature:

# The Making of The National's *I Am Easy to Find*

A deep dive into the making of this ambitious album and short film including interviews with Aaron and Bryce Dessner from the band, primary engineer Jonathan Low, mix engineer Peter Katis and film director/co-producer Mike Mills. Includes links to the film and streaming audio of the album.

<https://tapeop.com/interviews/133/making-of-the-national-i-am-easy-to-find>



"It's time-based art, so it's all about generating a momentum or flow and then playing with that flow."  
-Mike Mills



**TAPE OP is made possible by our advertisers.**  
Please support them and tell them you saw their ad in TAPE OP.