

Avantone Pro CLA-10 Passive Studio Monitors

Update to the Yamaha NS-10M Proves More Than Worthy of the Original

By Barry Rudolph

Yamaha Nippon Gakki Co. Ltd. released the NS-10M in 1978 as a domestic hi-fi speaker. Designed by Akira Nakamura, the original model was a sealed cabinet, vertically oriented (tweeter over the woofer), and came with a snap-on, cloth grille that hid the drivers. While they were a failure as a hi-fi speaker, by the 1980s they became popular in recording studio control rooms, usually residing on top of the console's meter bridge. The NS-10M was an immediate hit as an alternate, near-field monitoring loudspeaker and a welcome replacement for the smaller Auratone 5C Sound Cube.

Like the Auratone and certain other consumer-grade speakers, the NS-10M became a valuable tool that offered a “second look”—a reality check of mix balances to make sure they would “translate” well when played on a consumer stereo outside of the recording studio. Like the 5C, the NS-10M focuses like a microscope on the midrange frequencies and instantly reveals problems in an analytical and clinical way.

Because of this ability, their compact size (382 x 215 x 199 mm) and their distinctively stylish black lacquer cabinets and contrasting white cone woofers, they became essential kit in the offices of record company executives and managers. Your music had to sound great on them during your office meeting. The inescapable logic was: If your mix sounds good on these monitors, then it should sound great on any playback system.

More than 200,000 pairs were sold throughout the world, and over the years many variants were produced. By 2001, Yamaha stopped manufacturing them altogether, citing problems sourcing the wood pulp used for the drivers' cones. Many engineers are so familiar with their sound and shortcomings, they track and mix solely on NS-10M monitors—a speaker that originally sold for \$300 a pair (1978 dollars). Nowadays, a used pair, in various states of working order, can sell for several times that amount.

ENTER THE CLA-10

Avantone Pro, along with mixer Chris Lord Alge, have produced the CLA-10 studio monitor to be a careful and modern rendition of the horizontal version of the Yamaha NS-10M studio monitor introduced in 1980. Like that version, the CLA-10 handles more power and has a slightly reduced high-frequency response.

I found the fit and finish of the new CLA-10 to be superior to the old monitors, with the rear of the cabinet also finished (the NS-10M is not), making them attractive from all angles. The CLA-



10 and NS-10 cabinets are both made from non-layered 18mm thick medium-density fiberboard (MDF) covered with a gloss-black veneer; however, the CLA-10s uses a real wood veneer.

Avantone changed the original NS-10M's puny push terminals recessed in the back of the speaker over to large, quality binding posts flush-mounted on the back of the speaker—it is much easier to attach heavy-gauge speaker wires to them. These posts accept good-size speaker cable spade connectors, so I made a pair of short jumpers using #12 zip cord, “audiophile” gold spade lugs, and Neutrik Speakon inline connectors to interface my power amp rack.

I opened up one of my CLA-10 speakers sent for review and found the interior of the cabinet filled with absorptive poly-fill polyester instead of the noxious, low-density fiberglass found in the old monitors. The woofer and tweeter are mounted using regular wood screws, whereas the originals used machine screws that screw into captive T-nuts inside the cabinet. For my own CLA-10s, I plan to check the tightness of these wood screws over time.

The crossover network copies the NS-10M Studio version; it is a second-order filter that uses the same value capacitors, inductors with the original's DC resistance, winding dimensions and inductance values. Also exactly matching the Studio version is the 2 kHz crossover frequency and the monitor's operating range of 60 Hz to 20 kHz. The CLA-10 will handle 60 watts of music program and up to 120 watts peak. The monitor is rated at 8-ohm input impedance, and sensitivity is measured at 90 dB SPL at 1 meter/1 watt.

The 3.5cm AV10-MHF dome tweeter uses the exact phenolic resin doping to match the original's performance curve. The tweeters

PRODUCT SUMMARY

COMPANY: Avantone Pro

PRODUCT: Avantone CLA-10 Passive Studio Monitor System

WEB: www.avantonepro.com

PRICE: \$699 MSRP per pair

PROS: A beautiful rendition of the NS-10M studio monitor.

CONS: They sound close but not exactly like your favorite pair of originals.

have the flat metal grilles just like the later-model tweeters. The 18cm AV10-MLF woofer cone is made to match the original's stiffness and weight. The CLA-10 uses a pressed cone instead of a folded and lapped seam paper cone for the woofer. It comes from the same supplier as the old Yamahas. Avantone Pro says that using a pressed cone allows for tighter control over stiffness and weight, allowing for matching pairs—in fact, replacements for both woofers and tweeters can be purchased separately and will retrofit any vintage NS-10 monitor.

MIXING WITH THE CLA-10S

I use a Crane Song Avocet II monitor controller so I can switch instantly between three different sets of monitors. In addition, I can preset or calibrate them all to approximately the same volume level (given their differing frequency responses).

But before I got into serious evaluation/mixing, I wanted to “run in” these new monitors. The manual suggests various time periods to “normalize” the driver's surrounds and loosen them up. I ran bass-heavy music CDs at loud volume for a total of 15 hours during a three-day period.

I tried two different power amps with the CLA-10s: Hafler P1500 (75 watts into 8 ohms) and a Bryston 4B SST (300 watts into 8 ohms). The sonic differences were subtle at quiet-to-medium volume levels, but at louder levels, the Bryston prevailed with better bass transients and a lower noise floor.

If you use a powerful amp during tracking sessions, you should add in-line, fast-blow fuses as is the practice in commercial studios. Fusing speakers is controversial: some (correctly) claim it changes the sound, but I say a blown driver changes the sound more! All of my sonic appraisals were done without fuses and using the Bryston amp.

THE A/B?

With so many various models produced since 1978, the different power amplifier combinations used and the elderly status of the various crossovers still inside those old speakers, it is impossible to do a proper and fair A/B comparison. Purist Alert: The CLA-10s will probably not sound EXACTLY like that favorite old pair of your trusty and nearly 40-year old Yamahas.

Generally speaking, and using this amp, the CLA-10s were louder with more and tighter bass above about 100 Hz. You cannot hear deep bass well on them—that is normal and to be expected. They were bright, as expected, but I've found that is mellowing out a bit as they break in. I can notice a difference between when I first hooked them up and 15 hours later; I now have about 24 hours on them and they sound great.

Using either amp, the first thing that hit me was that the CLA-10 seemed to be more efficient at the same volume level setting on the Avocet. I am well aware of which 1 dB step on the green volume control produces a certain loudness from a mastered Pop mix I did or a commercial CD playing via the Avocet's digital input.

I work in an acoustically treated mix room, and my typical workflow is to switch to these monitors after working a while on my full-range main monitors. When playing them at medium-to-quiet volume, vocals, keyboards, guitars, strings and the attack portion of the sound of a drum kit all occupy the midrange and are “pushed out” from the rest of the mix. Just like the Yamahas, I'm finding small changes in the level of these individual instruments and vocals are easily discerned listening on the CLA-10s.

Monitoring at quiet volumes, I get through vocal rides faster and more accurately now, and mixing mistakes, noises, sibilant peaks, excessive reverb and occasional over-loud cymbal crashes (that were not obvious on the mains) are now very obvious once I start drilling down into the details with automation and EQ tweaks.

This is the job and purpose of these monitors, and probably the reason most music mixers rarely have sets of NS-10Ms for home stereo speakers!

MY FAVORITE SETUP

Since the CLA-10s replaced my old Yamaha NS-10Ms, I thought to try them vertically—tweeter over woofer. The CLA-10s' individual serial numbers include “R” and “L” for right and left horizontal positioning so that the tweeters are on the outside for the best stereo imaging.

Mixer Chris Lord-Alge recommends the speakers be placed 3 to 4 feet from you at ear level and to separate the left and right monitors by about 42 inches. If you do not have that width available on your monitor shelf or atop your console because of other monitors, you should use them vertically—old school style.

Besides allowing for more distance between them, the tweeter is higher up and it projects sound more inline with the woofer's projection for a clearer stereo image. Personally, I prefer using them vertically with the tweeters hard left and right and so you will have to use the “L” speaker on the right side and “R” speaker on the right.

SO HAPPY!

Yes, I am so happy to have proper, new and better monitors! Whether you like them in the horizontal position or vertically, the new Avantone Pro CLA-10 passive monitors are an excellent tool to own and use in your mixing space. Recommended. I use them every day! ■

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