Featured: GearFest 2017, Northside Festival, and Sylvia Massy at CRAS

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NEW PRODUCTS

The Making of CHRIS STAPLETON'S FROM A ROOM: VOLUME 1



CAPTURING LIVE MAGIC From The Control Room 9 STEPS TO Painless Live Gig Recordings





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REVIEW





The laser targeting system is only one of this pencil condenser mic's innovations

REVIEW BY PAUL VNUK JR.

hile Aston is a relatively new microphone company, having launched barely two years ago, it's definitely hit the ground running. This is not surprising as the core members of the company were behind the success of sE Microphones.

Since forming Aston, the UK-based team has brought to market a lineup of microphones that are significant for offering their own sound while being highly affordable and handcrafted on British shores. Only the capsules are Asian sourced; everything else is proudly made in the UK.

The ever-restless James Young and his team are not content to make same-old-same-old mics, and so far each Aston model has featured unique design elements from their tumbled stainless steel bodies to Wave-Form Mesh heads and more. My reviews of the large-diaphragm Origin and Spirit models can be found in our April and December 2016 issues respectively.

Starlight, laser bright

This month we look at Aston's newest microphone, the Starlight—the firm's first small-diaphragm pencil condenser. The Starlight offers something old, something new, and even something a bit futuristic.

At first glance, the Starlight looks like a lightsaber prop from a Star Wars movie. That impression comes not only from its overall profile, but also from the elongated black plastic ridge running along the mic's length. That ridge houses the Starlight's laser sight. No, that's not a joke; the mic actually has a builtin red laser diode, used for aiming the mic accurately and reproducibly at sources by "painting the target" with a bright red dot. It's a real Class II laser, and while it's nowhere near powerful enough to burn your skin, you should be very careful not to point it at your eyes, or anyone else's.

This idea is not without precedent; audio engineers have been known to use lasers to aim their microphones. However, this is the very first time a mic has come with one built in that runs off of phantom power. As cool-looking as it is while setting up and checking your sound, you should turn it off before actually recording; the laser circuit adds unacceptable noise to the signal.

Very sinteresting

The Starlight is made from the same 1.5mm 4-hour-tumbled stainless steel as its LDC brethren, complete with an enamel Aston logo Badge. The body is tapered on the XLR side and the cable jack sits partially recessed into the mic body.

Aston also continues its use of unique head grille designs on the Starlight. The Starlight doesn't use metal mesh or springs like the Origin or Spirit; it has a sintered grille, a form of technology that comes from the distant past (the old AKG D190e comes to mind). While Aston didn't invent this technology, the team did a lot of research to bring it into the modern age.

According to Wikipedia, sintering is the process of "compacting and forming a solid mass of material by heat or pressure, without melting it to the point of liquefaction." In the Starlight's grille, thousands of tiny spheres are sintered together to create a porous metal that acts as a natural pop filter of sorts. The Aston engineers "tested many thicknesses of sintered head, as well as the average size of the sinter spheres, and combined that with nickel plate which is controlled to only a few nanometres thickness to achieve near perfect acoustic porosity."

The sintered grille houses a 20 mm cardioid capsule. The capsule is threaded and removable, but Aston has no current plans to offer alternative capsules with other polar patterns.

Electronics

The Starlight is an all-discrete transformerless design. The cardioid element is a pressure gradient capacitor design with a 20 Hz – 20 kHz (±10 dB) response, an equivalent noise level of 15 dBA, a Sensitivity of 42.1mV/Pa (1 kHz into 1 k Ω), a max SPL of 130 dB without pad, and a signal-to-noise ratio of 79 dBA.

Below the laser are four function switches on the sides of the body. The first one controls the on-off setting of the laser. Next is a 3-position pad switch (-20/-10/0 dB for a true maximum SPL of 150 dB), a lowcut filter with choices of 80 Hz or 140 Hz, and finally a voicing switch with a choice of Vintage, Modern and Hybrid settings.

Looking at the Starlight's frequency graph explains the voice settings well. Overall the mic has a virtually flat response from 150 Hz up to 5.5 kHz. In Vintage mode the mic retains this neutrality up to about 12 kHz and then rolls gently off; in Vintage mode the low end is also gently boosted. Moving to

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Modern mode, the low end stays flat but the high end moves up about 5 dB from 5.5 kHz to 12 kHz and then rolls off.

Hybrid combines the Modern high end with the gently fuller low end of Vintage. Also of note: this is not a post-amplifier EQ process, but according to Aston is achieved by filtering between the capsule and the amp circuit. In fact, the three voicings actually represent three distinct circuit paths; the Starlight, electronically, literally is three mics in one.

Like all Aston mics there is no carry case or pouch and the mics come in an eco-friendly cardboard box. Saving money here allows Aston to offset the cost of more important accoutrements like a custom Rycote Lyre-style shock mount and a hard mic mount. If you purchase a stereo pair of Starlights, you get two of each along with a stereo bar.

Laser focused

I used the Starlight on acoustic guitar, cajon front, mandolin, and a Princeton Reverb reissue amp. In each case I not only appreciated the aiming ability of the laser, but more so the laserlike focus of the sound. Although the Starlight is a cardioid mic, it has great off-axis rejection and a tight proximity effect. The mic really can focus the sound right on the spot! [Aston explains that this is due to the sintered grille, which preserves perfect linearity in off-axis response and tunes the acoustic space surrounding the capsule rather than using notches or holes to control airflow.—Ed.]

I asked Aston's James Biddle about this at Sweetwater's GearFest, and he said this sonic focus was quite intentional. In his words, "If you are going to add a laser for aiming, you had better be picking up exactly what you're aiming at." Mission accomplished!

This focus and directionality is most apparent when using a stereo pair of Starlights, especially on drum overheads. Usually I aim mics to make sure the stereo center of the snare is evenly balanced; when I aimed the Starlights at the snare, I got so much snare that it actually fought with my snare mic! Instead, As to the voicing, Vintage mode is very close to the classic flat/neutral pencil mics. I'm reminded of the Shure SM81, but even more of the Neumann KM 84, which is surprising since the Starlight is transfomerless. It's also about 20 dB hotter than my KM 84s.

Modern voicing opens the sound up quite a bit. I can't say if it's KM 184ish or not, as I couldn't track one down for comparison, but I liked the way the Starlight picked up delicate acoustic guitar strings in this mode. It's great for detail work. However, on cymbals, drum overheads, guitar amp, and tambourine, my tastes were Vintage every time. I'm still experimenting and finding uses for Hybrid mode.

Also note that on boomy sources, the two stages of lowcut filtering work great to clean up mud and rumble.

Conclusions

Once again, Aston has done a great job of crafting a new studio workhorse with multiple sonic options that will easily find a home in project and pro studios alike. Its price is quite a bargain when you consider that thanks to the voicing switch you're getting three mics in one. While the laser could easily come across as a gimmick, I consider it one of those "now that I have it, I'll use it" tools that makes miking setups easier and quickly gets taken for granted.

You just need to make sure there's no horsing around and pointing it at people. It's all fun and games until someone gets a laser in the eye. \Rightarrow

