

# MACKIE MP-240

Evaluating a just-introduced set of in-ear monitors.

by **Jonah Altrove**

**T**he new Mackie MP Series of in-ear monitors consists of three models: the single dynamic driver MP-120, dual dynamic driver MP-220, and hybrid dual-driver MP-240. All three ship with braided, detachable cables, a wide selection of interchangeable earpiece tips, a hard-molded carrying case, and a gold-plated 1/8-inch to 1/4-inch headphone adapter, which is a considerate gesture.

Over the last few weeks, I've been testing the flagship of the series, the MP-240, which uses a balanced armature for the highs and mids, crossed over to a standard dynamic driver for the lows. If you're not sure what a balanced armature driver is, here's a metaphor: if a regular dynamic driver is a magnetic piston, a balanced armature driver is a magnetic see-saw. The rocking motion fosters very accurate reproduction of higher frequencies. Balanced armatures can't move as much air as a regular dynamic driver, but since that's not a concern with IEM applications, balanced armatures are a common choice for high-fidelity HF response.

The MP-240 comes in a very snazzy, magnetically latched package, which is a nice touch. I consider replaceable cables essential for a quality IEM system, to the point that I wouldn't ever invest in a system without them. The included cable was sturdy with good strain relief at both ends, smooth enough not to drag on clothing, and sufficiently flexible so as not to be



annoying. The length is perfect for plugging into a console headphone jack, but might be a bit too long for some applications, so a shorter cable would be a nice option.

I wear eyeglasses, so it's always a battle for me to get IEM earpieces to "play nice" with the eyeglass frames. By putting the IEMs on before my glasses, I was able to get a good position that allowed me to move my head without the annoying "clack clack" noises that I've experienced with other IEMs.

The interchangeable tips are a bit tricky to change – the secret is to sit down at a table and not to rush the process – but I actually would rather have the tips be slightly stubborn than have them be too easily detachable, which results in them falling off and getting lost. I feel confident that these tips won't fall off when the IEMs are hanging around a neck or riding inside a pocket.

## SPECS & MORE

According to Mackie's published specifications, up to 40 dB of isolation is possible. As with all IEMs, this depends greatly on the fit that is achieved. I preferred the medium-sized dual-flanged rubber tip, which created a comfortable, air-tight seal in my ear canals, and I would estimate that it achieved 26 dB or so of isolation. It was certainly enough for me to listen

*Mackie MP-240 in-ear monitors, the flagship of the new MP Series.*

critically to the mix while playing drums without distraction from the acoustic sound of the kit.

If I had a need for more isolation, I could have swapped tips, but many more expensive custom-fit models will achieve around 26 dB of isolation, so I was already in the ballpark. The fit proved to be comfortable for long periods of time.

As audio engineers, we tend to focus a lot on the sound quality of IEMs, but musicians often have additional reasons for liking or disliking certain models. For example, does the cable snag on clothing as the head is turned? Does the cable discolor with sweat, or stick to damp skin?

Another often-overlooked problem is that human ear canals actually enlarge by a tiny amount when the mouth is open. If a good fit is accomplished with the mouth closed, the IEM fit can become loose as soon as the artist starts to sing. The poor fit compromises the seal, so now the quality of the mix is impacted, and a loose fit combined with on-stage antics can cause the earpieces to fall out entirely. These are all things I'd prefer to know about before the show starts.

In an attempt to allay these concerns, I put on the MP-240 earpieces and jumped

on the treadmill, running the cables down my back between the two shirts I was wearing. Staying true to my unapologetically professed love for high-potency pop music, I enjoyed a brisk jog while listening to two of my favorites, Tove Lo's "Talking Body" and Cher Lloyd's "Want U Back."

The Tove Lo tune is a very revealing test of low-frequency extension as it features synth tones that reach down to the very bottom of the sub range, and many systems can't keep up. The MP-240 handled the song without breaking a sweat (unlike me) and sounded only a few dB down at the lowest extremes of the range, which is certainly impressive for a universal fit model in this price range. I was further impressed that the cable didn't hang up on my clothing or stick to my sweaty neck.

I then went for some Taylor Swift for the sing-along test. Unfortunately, this experiment was ended prematurely by my friend Jerry under threat of violence, but at no point was the fit of the earpieces negatively impacted by the fact that I was belting out Taylor Swift lyrics. I do feel that the fit probably would have been negatively impacted by Jerry punching me, but I wasn't curious enough to find out.

## PERFORMANCE SPECIFICS

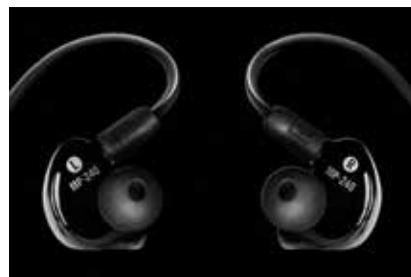
When it comes to reviews, I always prefer hard measured data over the opinions

of someone who may or may not share my preferences, but obtaining accurate frequency response and THD (total harmonic distortion) statistics from an IEM is virtually impossible without specialized equipment that only the manufacturers have access to.

Therefore, in lieu of a nice chart, I'll mention that I listened to "117" (from the Halo 4 soundtrack), which is a mainstay of my system tuning playlist. I can report that the track sounded like it should, which means that, to my ear, the MP-240 has a nominally flat frequency response. (Mackie cites the frequency response as 20 Hz-20 kHz but without a +/- tolerance.)

If it were a more expensive model, I'd probably say they could use +1 dB or so above 6 kHz, and a bit of emphasis below 160 Hz or so as well, but the sound quality is far better than I would have expected for the price. I own a similarly-priced model from a well-known IEM manufacturer, and the MP-240 absolutely blow them out of the water in terms of sound quality.

One of my more nerdy concerns with high-sensitivity IEMs is that since they're responsive to very small signal voltages, the low-level residual noise from devices' headphone outputs becomes very audible. All headphone outputs will have some level of thermal noise – how



**Left (L) and right (R) markings on both the earpieces and cable ends.**

much depends largely on the skill of the designer – and with extremely sensitive IEMs, the hiss can be intrusive. Happily, the MP-240 did not seem to suffer from this issue. (Good job, Mackie!)

Both the cable ends and earpieces are marked with a small "L" and "R" near the connection point. These are great in good lighting, but would be very difficult to see in a dark backstage area or up close (as when hanging around your neck). I encourage Mackie to think about using a dab of red paint in the "right" channel indicators, which I feel would help resolve this minor issue. My only other suggested improvement is that the stiff over-the-ear portion of the cable be just a bit more rigid to better hold the shape I bent it into.

In conclusion, I was surprised by the quality of the MP-240. For years, when asked for IEM recommendations, I've always said "If you're spending less than \$500, you'll be disappointed." I can now say that the MP-240 are the first sub-\$500 model I can honestly recommend.

Obviously they're not comparable to custom-fit models costing three or four times more, but I don't know of any other \$200 models that sound this good. I'd certainly keep them in my workbox for the odd bit of monitor mixing, and right now they're my go-to for leisure listening as well. If the Mackie MP-240 is a good fit for your budget, you should absolutely check them out.

**U.S. MAP: \$169.99** **LSI**

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CREDIT: TANYA LOMBARDO

**The MP-240 is supplied in a magnetically latched package.**