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Details on pg. 67



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POINT SOURCE AUDIO EMBRACE EARSET MICROPHONE



Don't look. The availability of high-quality, miniature microphones has made voice reinforcement much more consistent as well as unobtrusive. When they are combined with wireless transmitters, pastors, presenters, theatrical performers, and others can move freely—while still being heard. Part of the equation is how to attach the mics to best capture the person's voice, becoming a compromise between gain-before-feedback, audio quality, and intelligibility.

Since its founding in 2004, Point Source Audio has focused on developing solutions to these audio challenges. Its latest offering is the patent-pending Embrace Earset Microphone, a customizable low-profile unit that combines a miniature lavalier-style microphone with an earmount that can be shaped and cut to fit the individual user and the desired mic positioning at the ear.

THE MICROPHONE

The Embrace earset incorporates the award-winning Series 8 omnidirectional miniature condenser microphone element, which measures only 4 mm (0.16 inches) in diameter and weighs just a few grams. It features a wide frequency response, specified

"THE MIC CAN WITHSTAND VERY HIGH SOUND PRESSURE LEVELS WITHOUT OVERLOADING, WITH A MAXIMUM SPL OF 148 DB."

REVIEWER / GARY PARKS

at 20Hz-20kHz, and is highly sensitive at -43 dBV. Response is flat through the low and mid frequencies, with a slight emphasis to enhance intelligibility in the 5kHz-8kHz ranges, and a gradual rolloff beginning at approximately 15kHz. The mic can withstand very high sound pressure levels without overloading, with a maximum SPL of 148 dB.

The microphone is connected to a very thin yet durable four-foot cable, and terminated with a small, threaded X-Connector—which in turn can be fitted with a variety of connector ends that mate with any type of wireless transmitter. Its operating voltage ranges from 1-10 VDC, so [it] is powered by the transmitter connection. A full-sized XLR adapter is available for any wired applications. The microphone is available in four colors: white, beige, brown, and black; while the Embrace earmounts come in beige, brown and black.

The Series 8 element has an IP57 rating against the incursion of water, dust, and other contaminants. Thus the microphone will be able to stand up to sweat, makeup, and other materials that can harm the performance of body-worn mics.

THE EARMOUNT

Complementing the microphone to facilitate head-worn placement, the Embrace Earset can be easily and quickly shaped to fit the ear of any user. Made of soft, rubbery, and internally reinforced plastic, the earmount comes as an offset-C shape that if stretched out would measure about six inches in length. The middle, approximately four inches, has a malleable core that retains its shape when manipulated. It may be bent, twisted, and trimmed in length to fit comfortably and securely around the wearer's ear while positioning the microphone just above and to the front of the ear.

THE EMBRACE WAS ESPECIALLY DESIGNED FOR APPLICATIONS SUCH AS LIVE THEATRE OR BROADCAST STAGES, WHERE THE MICROPHONES MUST BE HIDDEN AND THE USERS ARE LOCATED WELL BEHIND THE LOUDSPEAKER SYSTEMS.

COMPANY: **POINT SOURCE AUDIO**
PRODUCT: **Embrace Earset Microphone**
URL: **www.point-sourceaudio.com**
LIST PRICE: **\$530**

Wearing a trimmed earpiece with microphone attached, I stopped feeling it within less than a minute. The mic stayed firmly in position with vigorous head movement, and was unnoticeably light. The major benefit of the Embrace design is that an earpiece can be customized to fit a particular individual in moments, and then be ready for use.

ACCESSORIES

The Embrace earset is quite versatile as supplied by Point Source Audio. The review sample consisted of the omni lavalier mic with attached cable, as well as a connector “tail” with a TA4F mini-XLR connector for wireless use. Two blank earpieces were included, which were mirror opposites for use on the left or right ear, along with clear end caps to cover the end of the trimmed earpiece that goes under the ear—plus a fitted windscreen for the mic.

The set also included a variety of other mounting clips in case the sound engineer desires from time-to-time to use the mic for lavalier or other body-mounted applications. Both single- and dual-mic “slider” bar clips are provided to slip the mic onto a tie, shirt, or other clothing. The clips on these bars

can be rotated to point the mics toward the desired audio source. In addition, an alligator-style single-mic clip is included.

PUTTING IT TOGETHER

To assemble the Embrace Earset, first choose which ear will be used and select the appropriate blank. Then with modest finger pressure, bend and shape the earset to fit the user's ear, and then trim the excess from each end—placing a clear end cap on the lower end to tuck behind the ear. Place the mic element extending from the upper end, and then press the cable into the channel on the back side, which has internal “stays” molded in that hold the cable securely. Run the cable out the back side of the channel, and you're done. Even the first time, it only takes seconds to attach the mic, remove it for other uses, and reattach it as needed.

The X-Connector twists into place with two or three turns, and holds the connection in place firmly even with a gentle finger-tighten. With this connector solution, the same microphone can be used with different types of wireless transmitters, and can be adapted easily to a new wireless purchase.

APPLICATIONS

The audio quality is quite good and natural sounding, capturing the fundamentals of the voice along with the higher frequency information, including consonants, sibilance, and mouth/lip sounds. The mic is quiet with head movement, and resists handling noise well.

Because it is an omni mic and is positioned by the ear—several inches from the sound source—the level of the voice is considerably lower compared with using a headset with the mic element right at the corner of the mouth. More gain can be obtained using equalization to shape the response, with a parametric to pull out especially sensitive frequencies. In smaller rooms, or in front of or near loudspeakers,

I would suggest using Point Source Audio's headset mics with longer booms, which incorporate either the Series 8 omni or a related cardioid element.

The Embrace was especially designed for applications such as live theatre or broadcast stages, where the microphones must be hidden and the users are located well behind the loudspeaker systems. The earset should also be effective in larger churches for pageants, at the altar, and in other applications behind and at a distance from the loudspeakers facing the congregation.

FINAL TAKES

The Embrace Earset Microphone lives up to its purpose as a very fast and effective way to build custom-fit, unobtrusive microphones for actors and other presenters. It sounds very good, is quite flexible in its application, comes with a variety of accessories, and has the adaptors to work with virtually any wireless transmitter. It's not a replacement for a headset, because the mic is located at a distance from the voice. However, the use of the same microphone element throughout the line gives the opportunity to have the same audio characteristics in a lavalier, headset, or earset positioning.

The Embrace Earset Microphone package, model number NUMBER EO-8WL, has a list price of \$530, with a current street price in the vicinity of \$378. Six-packs of replacement customizable earset pieces are available for \$330 list, and are also available in packs of 12 and 24 for large productions.

GARY PARKS has served as marketing manager and wireless product manager for Clear-Com Intercom Systems. He has also worked with loudspeaker and wireless product management at Electro-Voice, technical writing at Meyer Sound, and RF planning software sales with EDX Wireless. Gary is a freelance writer and can be reached at garycparks1@gmail.com. 