

# UNDERSTANDING WIRELESS TRANSMITTERS / RECEIVERS

In order to fully understand the total benefits of in-ear monitoring, let's first cover the basics of wireless transmitters: how they work and how they relate to in-ear monitoring. Wireless systems and in-ear monitors are interdependent — you rarely have one without the other and in order to reap the benefits of both you must have the right systems in place and have a basic understanding of how they work.

## EXPERIENCE TRUE FREEDOM

The goal of wireless systems is to create more onstage freedom. Wireless transmitters allow individual mixes to be sent directly to each artist via radio frequencies, so they can move around freely on stage. As a result, artists are no longer tethered to floor wedges and the problems with variance of sound levels, dead spaces and feedback issues cease to exist. Here is how this works: from the mixing console, each artist's output is routed to a transmitter and then wirelessly sent to a receiver belt-pack worn by the artist. The custom monitor plugs directly into the receiver and completes the signal path. For an ideal mixing situation each artist should have his or her own mix and transmitter.

## YOU'RE ONLY AS STRONG AS YOUR WEAKEST LINK

This old adage is definitely the case with audio. The quality completely depends upon every piece of gear in your signal chain. Using generic earbuds that come with your wireless transmitters limits hearing the full frequency spectrum. Likewise, using the top-of-the-line custom IEMs with an inferior wireless system limits the capacity of your IEMs.

## TO RENT OR TO BUY

Wireless systems range from \$300 to \$3,000 per unit. You have a choice: renting or buying. If you buy your system, you pay once and it's yours, simple as that. If you rent, you won't have to deal with maintenance, upkeep or upgrades. It should be noted that very few high level acts own their wireless gear; the industry standard is to lease for the length of the tour. This way when something breaks or stops working properly you have someone to call and they're responsible for fixing it. Whichever way you decide to go, know that Shure and Sennheiser are two highly regarded players in the industry and picking a wireless brand often comes down to the individual preference of the artist and/or monitor engineer. Budgets also play a pivotal role in deciding which way to go and it is worth noting that both companies sometimes offer artist endorsements and will bundle wireless transmitter/receivers along with their microphone packages. However, the generic earbuds that come with these packages do not offer the same levels of clarity and fidelity that custom in-ears offer. Since neither company makes custom in-ear monitors, you can use Ultimate Ears even if either company endorses you.

## LET US HELP

We are happy to provide additional information about each product and we would love to help design your complete wireless system. We also facilitate wireless rentals and can even sell complete wireless tour packages

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