

m2

m3

WIRELESS IN-EAR MONITOR SYSTEMS

WITH **PERSONAL MIX CONTROL**
AND EP3 DYNAMIC EARPHONES



WHY IN-EAR MONITORS?

Clarity is first among the many reasons to make the switch from traditional floor monitors to wireless in-ear monitor systems for live performance. Many musicians find that traditional floor monitors are not giving them the articulate sound they need; they either can't hear themselves clearly, or can't hear themselves at all when stage volume is loud. As a result, they may experience voice strain from singing at unsustainable levels in an attempt to be heard above the on-stage noise level.

Another sound issue often plays into the decision to switch to in-ear monitors: as traditional floor wedges contribute to rising noise levels on stage, many performers are troubled by feedback, and by an overall audience mix that is muddled by stage spill from the floor monitors.

Often, artists choose in-ear monitors because they want to control what they hear on stage, creating a personal mix that's tailored for their best performance. Others turn to in-ear monitors to help control and limit exposure to high sound pressure levels for hearing conservation. Some are simply tired of lugging heavy and cumbersome monitor equipment to each gig.



**Hear what you want.
When you want.
How you want.**



Introducing M2 & M3 Wireless In-Ear Monitor Systems

Audio-Technica is proud to introduce its first entry into in-ear monitoring, the new M2 and M3 Wireless In-Ear Monitor Systems. These feature-rich systems are designed to provide comfortable, crystal-clear sound on stage. Both stereo monitor systems are equipped with earphones offering proprietary Audio-Technica dynamic drivers with richly detailed high-fidelity sound. The clean, articulate mix allows performers to hear themselves at a comfortable volume. Instead of hearing a one-size-fits-all mix, performers have the benefit of Audio-Technica's Personal Mix Control, offering volume and mix control of two independent signals at the receiver. Delivering a wide array of professional features, the M2 & M3 Wireless In-Ear Monitor Systems are the new standard for in-ear audio in live performance.

- **Crystal-clear audio**
Hear yourself clearly on stage
- **Personal Mix Control**
Control what you hear as you perform
- **Avoid feedback**
Get cleaner, more articulate house sound
- **Help conserve hearing**
Experience articulate audio at lower volume
- **Travel light**
Never carry a heavy monitor system again

Be kind.
To your ears... to your back... to your audience



M2 Wireless In-Ear Monitor System

The M2 is designed to make professional in-ear monitoring features accessible for performers who want to be free from the problems associated with floor wedges. The system offers Personal Mix Control, which gives each musician independent control of volume and mix on stage, via easy-to-use controls on the M2R stereo body-pack receiver. The wireless UHF M2T stereo transmitter provides a choice of 100 selectable frequencies and is equipped with two 1/4"/XLR combo input connectors into which users can connect line-level inputs (from a mixing console, for example). While up to 10 complete M2 systems may be used on stage simultaneously, any number of M2R stereo receivers may be used on the same frequency with a single M2T stereo transmitter. These rugged systems are built to stand up to the inevitable bumps of life on the road, delivering clear, natural sound for touring and installed-sound uses.



front



back

M2T UHF Stereo Transmitter



M2R Stereo Receiver



EP3 Headphones

M2 Features

- **High-fidelity sound with clean, articulate mix allows you to hear yourself better at lower volume**
- **100 selectable UHF channels**
- **Up to 10 simultaneous systems per frequency band**
- **Three receiver modes: Personal Mix, stereo, and mono**
- **Personal Mix Control allows you to adjust your own mix on stage**
- **3.5 mm line-in jack connects to ambient microphone, click track & more**
- **Auxiliary input offers connection point for ambient microphone, click track, or other mic-or line-level input**
- **LED indicators provide easy-to-read level monitoring**
- **XLR loop output (true pass-through) connects signal to mixing console, additional IEM system or recording device with no signal degradation**
- **Adjustable squelch eliminates annoying static**
- **Pilot tone protects against RF interference when the transmitter is turned off**
- **Limiter (defeatable) helps protect your hearing from sudden peaks**
- **Portable system is quick to load and set up**
- **Reduces on-stage audio clutter for better overall mix & less feedback**
- **Use any number of M2R Stereo Receivers (with Personal Mix Control) on the same frequency**
- **Audio-Technica earphones with proprietary dynamic drivers offer full frequency response and outstanding isolation**
- **Personal fit with 3 sizes of rubber eartips plus an ear-conforming foam tip**

M2 Components

EP3 Headphones

In-ear dynamic headphones offer high-fidelity sound and excellent isolation

M2T Stereo Transmitter

Wireless UHF transmitter (frequency-agile) offers 100 user-selectable frequencies

M2R Stereo Receiver

Personal Mix Control in a lightweight body-pack

The fusion of great sound & good sense.



M3 Wireless In-Ear Monitor System

Audio-Technica's advanced M3 IEM system offers a full range of professional in-ear monitoring features, with a choice of 1321 UHF channels and easy-to-read LCD information displays on both transmitter and receiver for setting preferences. The system is equipped with Audio-Technica's versatile Personal Mix Control, which gives each musician independent control of volume and mix on stage, via controls on the M3R stereo body-pack receiver. While up to 16 complete M3 systems may be used simultaneously, any number of M3R stereo receivers can operate on the same frequency with a single M3T stereo transmitter. The M3T stereo transmitter is equipped with two 1/4"/XLR combo input connectors into which users can connect line-level inputs (from a mixing console, for example). The M3T also offers a headphone output that allows you to monitor transmitter input signals directly.



front



back

M3T UHF Stereo Transmitter



M3R Stereo Receiver



EP3 Headphones

M3 Features

- **High-fidelity sound with clean, articulate mix allows performers to hear themselves clearly at lower volume**
- **1321 selectable UHF channels with automatic frequency scanning**
- **Up to 16 simultaneous systems per frequency band**
- **Three receiver modes: Personal Mix, stereo, and mono**
- **Personal Mix Control allows you to adjust your own mix on stage**
- **Back-lit LCD information display offers step-through menus for setting preferences**
- **XLR loop output (true pass-through) connects signal to mixing console, additional IEM system or recording device with no signal degradation**
- **Adjustable squelch eliminates annoying static**
- **Detachable antenna on transmitter**
- **Headphone monitor on transmitter**
- **Pilot tone protects against RF interference when transmitter is turned off**
- **Multi-level limiter (defeatable) helps protect hearing from sudden peaks**
- **Portable system is quick to load and set up**
- **Reduces on-stage audio clutter for better overall mix & less feedback**
- **Use any number of Stereo Receivers (with individual mixes) on the same frequency**
- **Audio-Technica earphones with proprietary dynamic drivers offer full frequency response and outstanding isolation**
- **Personal fit with 3 sizes of rubber eartips plus an ear-conforming foam tip**
- **Selectable auxiliary input offers connection point for ambient microphone, click track, or other mic- or line-level input**

M3 components

EP3 Headphones

In-ear dynamic headphones offer high-fidelity sound and excellent isolation

M3T Stereo Transmitter

Wireless UHF transmitter (frequency-agile) offers LCD display and 1321 user-selectable frequencies

M3R Stereo Receiver

Personal Mix Control in a lightweight body-pack with backlit LCD display

SYSTEM COMPARISON



●	●	UHF reception
100	1321	# of frequencies
10	16	Simultaneous channels
●	●	Pre-coordinated frequency groups
	●	Automatic frequency scanning
●	●	3 receiver modes: Personal mix, stereo & mono
●	●	Personal mix control (at receiver)
●	●	Squelch control
●	●	Pilot tone
●	●	Detachable 1/4" wave antenna on receiver
permanently attached	●	Detachable 1/4" wave antenna on transmitter
●	● 3-stage	Limiter (defeatable)
●	●	Phantom pass-through
●	●	High-fidelity sound
	●	Backlit LCD displays
●	●	Auxiliary input
	●	Soft-touch controls

SYSTEM APPLICATIONS

(Opposite page)

The nature of in-ear monitoring allows for endless experimentation; the M3 Wireless In-Ear Monitor System can be easily configured to meet your individual needs. While there are countless ways to use the system, we have illustrated some typical applications at right.

Typical two-channel set-up (Personal Mix Control)

This is most often used when the transmitter receives two very distinct mixes—such as band and vocal. In this example, the performer can control how much vocal is heard relative to the band mix. By turning the stereo receiver's balance control to the left, the performer will hear more vocal in both ears; by turning the receiver's balance control to the right, the user will hear more band mix in both ears.*

Typical two-channel set-up (Stereo)

In a typical stereo set-up, the signals from L/1 and R/2 are separate (not mixed). The user hears L/1 through the left earphone, and R/2 through the right earphone, and adjusts the relative level of each signal via the stereo receiver's balance control.*

*Additional IEM receivers can be used with the same transmitter as needed.

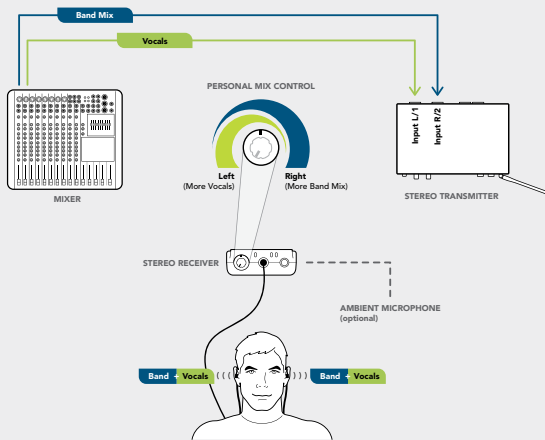
Advanced two-channel setup (Personal Mix Control using direct outputs)

This set-up enables each individual band member to control his/her relative mix levels using the balance control on his/her stereo receiver. Turn the stereo receiver's balance control toward the right to hear more band level (R/2) in both ears; turn the receiver's balance control to the left to hear more vocal or instrument of choice (L/1) in both ears. In this example, the loop output is used to send the same band mix to each IEM transmitter, saving your mixer's aux outputs for other uses.

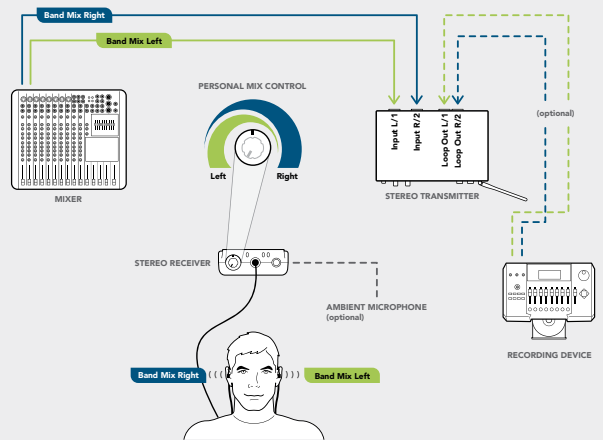
Advanced two-channel stereo setup (Multiple aux sends and ambient audience microphones)

This advanced set-up enables you to create custom stereo mixes using individual auxiliary outputs and IEM systems for each band member. This type of set-up is typically used with a dedicated monitor engineer and mixer.

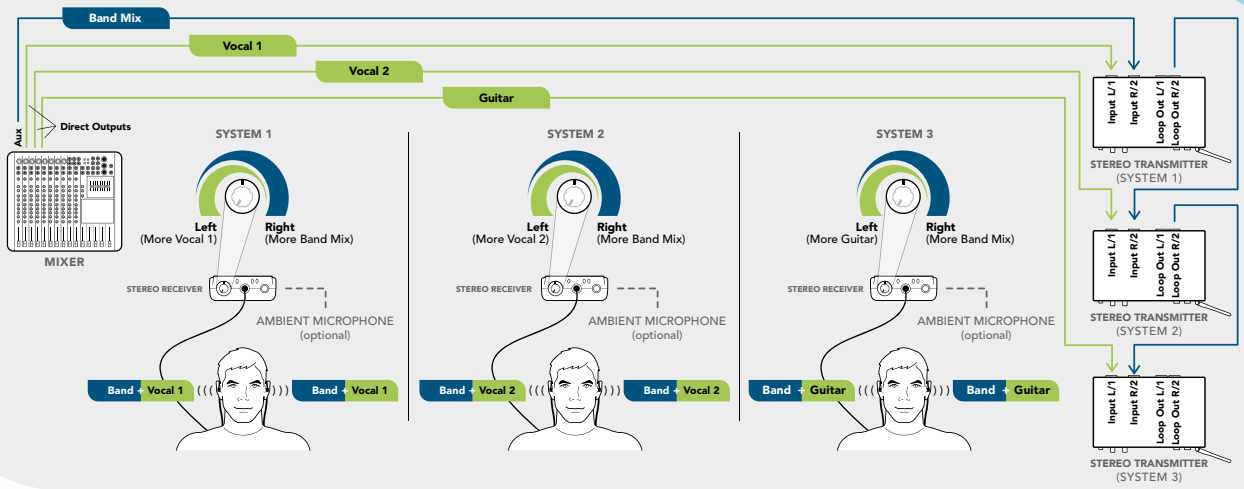
TYPICAL 2-CHANNEL SET-UP (Personal Mix Control)



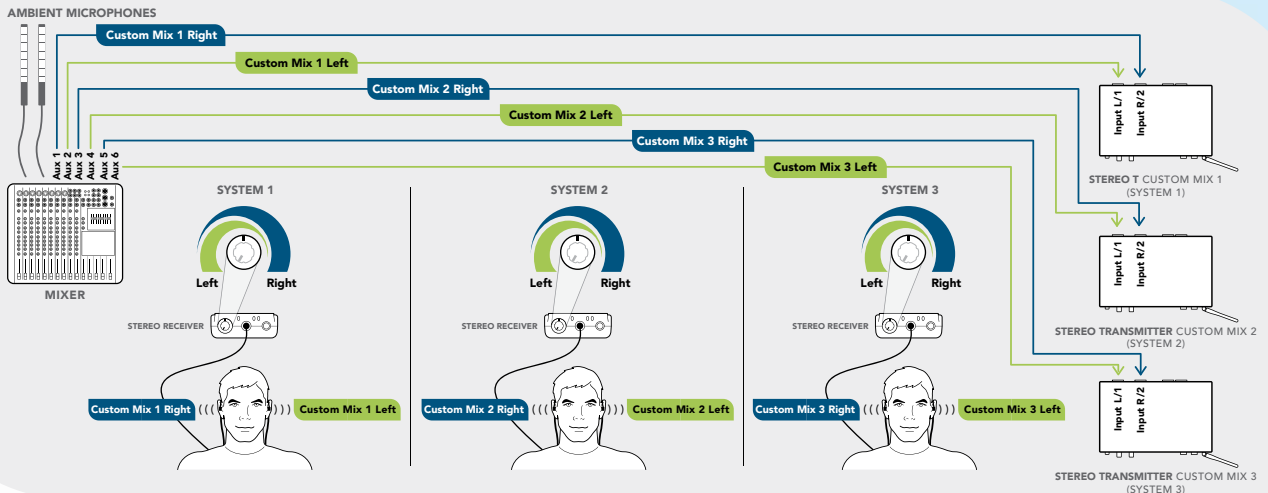
TYPICAL 2-CHANNEL SET-UP (Stereo)



ADVANCED 2-CHANNEL SET-UP (Personal Mix Control Using Direct Outputs)



ADVANCED 2-CHANNEL STEREO SET-UP (Multiple Aux Sends and Ambient Audience Mics)



M2 Specifications

Overall System

Operating Frequencies:

Band	Frequency Range (UHF)	Number of Frequencies
Band L	575.000 to 608.000 MHz	100
Band M	614.000 to 647.000 MHz	100

Minimum Frequency Step: 25 kHz

Modulation Mode: FM stereo

Maximum Deviation: ± 40 kHz

Dynamic Range: 90 dB (typical), A-weighted

Total Harmonic Distortion: $<1\%$ (at 1 kHz, ± 20 kHz deviation)

Operating Range: 100 m (300'), typical

Open range environment with no interfering signals.

Operating Temperature Range: -5°C (23°F) to $+50^{\circ}\text{C}$ (122°F)

Battery performance may be reduced at very low temperatures.

Frequency Response: 60 Hz to 13 kHz (± 3 dB)

Simultaneous Use: 10 channels per band (max recommended)

For assistance with multi-band operation or other frequency coordination issues, please contact your regional Audio-Technica customer service representative.

Receiver

Receiving System: Double conversion superheterodyne

RF Sensitivity: 20 dBuV (at 60 dB S/N ratio, 50 ohms termination)

Headphone Output Connector: 3.5 mm TRS stereo phone jack

Headphone Output Power: 65 mW (at 32 ohms)

Antenna Input: SMA-type, 50 ohms

Aux Input Connector: 3.5 mm TRS stereo phone jack

Batteries: 2 x 1.5V AA (not included)

Battery Life: 8 hours (alkaline)

Depending on battery type and use pattern.

Dimensions: 70.0 mm (2.76") W x 25.0 mm (0.98") D x 110.0 mm (4.33") H

Net Weight: 110 g (3.9 oz), without batteries

Accessories Included: EP3 earphones; frequency sticker; flexible antenna

Transmitter

RF Power Output: 10 mW/30 mW (switchable), 50 ohms

Following national regulations.

Spurious Emissions: Following federal and national regulations

Input Connection: XLR-type/6.3 mm stereo (1/4") combination connector

Pin 1 and Sleeve: Ground

Pin 2 and Tip: Hot

Pin 3 and Ring: Cold

Maximum Input Level:

Balanced XLR-type/6.3 mm stereo (1/4"): +26 dBu

Unbalanced 6.3 mm (1/4") mono: +26 dBu

Loop Output Connection: XLRM-type connector

Pin 1: Ground

Pin 2: Hot

Pin 3: Cold

Power Requirement: 12-18V DC, 600 mA

Antenna: Attached whip

Dimensions: 210.0 mm (8.30") W x 132.0 mm (5.20") D x 44.0 mm (1.70") H

Net Weight: 870 g (30.7 oz), without accessories

Accessories Included: AC adapter (country dependent); rack-mount adapters

M3 Specifications

Overall System

Operating Frequencies:

Band	Frequency Range (UHF)	Number of Frequencies
Band L	575.000 to 608.000 MHz	1321
Band M	614.000 to 647.000 MHz	1321

Minimum Frequency Step: 25 kHz

Modulation Mode: FM stereo

Maximum Deviation: ± 40 kHz

Dynamic Range: 90 dB (typical), A-weighted

Total Harmonic Distortion: $<1\%$ (at 1 kHz, ± 20 kHz deviation)

Operating Range: 100 m (300'), typical

Open range environment with no interfering signals.

Operating Temperature Range: -5°C (23°F) to $+50^{\circ}\text{C}$ (122°F)

Battery performance may be reduced at very low temperatures.

Frequency Response: 60 Hz to 13 kHz (± 3 dB)

Simultaneous Use: 16 channels per band (max recommended)

For assistance with multi-band operation or other frequency coordination issues, please contact your regional Audio-Technica customer service representative.

Receiver

Receiving System: Double conversion superheterodyne

RF Sensitivity: 20 dBuV (at 60 dB S/N ratio, 50 ohms termination)

Headphone Output Connector: 3.5 mm TRS stereo phone jack

Headphone Output Power: 65 mW (at 32 ohms)

Antenna Input: SMA-type, 50 ohms

Aux Input Connector: 3.5 mm TRS stereo phone jack

Batteries: 2 x 1.5V AA (not included)

Battery Life: 8 hours (alkaline)

Depending on battery type and use pattern.

Dimensions: 70.0 mm (2.76") W x 25.0 mm (0.98") D x 110.0 mm (4.33") H

Net Weight: 133 g (4.7 oz), without batteries

Accessories Included: EP3 earphones; flexible antenna

Transmitter

RF Power Output: 10 mW/50 mW (switchable), 50 ohms

Following national regulations.

Spurious Emissions: Following federal and national regulations

Input Connection: XLR-type/6.3 mm stereo (1/4") combination connector

Pin 1 and Sleeve: Ground

Pin 2 and Tip: Hot

Pin 3 and Ring: Cold

Maximum Input Level:

Balanced XLR-type/6.3 mm stereo (1/4"): +26 dBu

Unbalanced 6.3 mm (1/4") mono: +26 dBu

Loop Output Connection: XLRM-type connector

Pin 1: Ground

Pin 2: Hot

Pin 3: Cold

Power Requirement: 12-18V DC, 600 mA

Headphone Output Connector: 6.3 mm (1/4") TRS stereo phone jack

Headphone Output Power: 120 mW (at 32 ohms)

Antenna Connector: BNC, 50 ohms

Dimensions: 210.0 mm (8.30") W x 132.0 mm (5.20") D x 44.0 mm (1.70") H

Net Weight: 930 g (32.8 oz), without accessories

Accessories Included: AC adapter (country dependent); rack-mount adapters; flexible antenna

