AVMATRIX WM12 Mini Wireless Microphone Instruction Manual

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Product Usage Instructions

BRIEF INTRODUCTION

Overview
The WM 12 is an extremely small, full-featured wireless microphone system. The transmitter has a built-in microphone and can be clipped directly to the collar. This product adopts 2.4G frequency band for transmission, the receiver and transmitter will be paired automatically within 2-5 seconds after powering on, and the effective use distance reaches 100 meters(Open and undisturbed environment). The receiver uses a clear TFT display to show the current input and output audio dynamic messages, etc. Use the 3.5mm TRS output to connect to camera tablets, cell phones and other devices to assist in picking up high-fidelity audio. Ideal for applications such as interviews, micro-video recording or business presentations.

Main Features

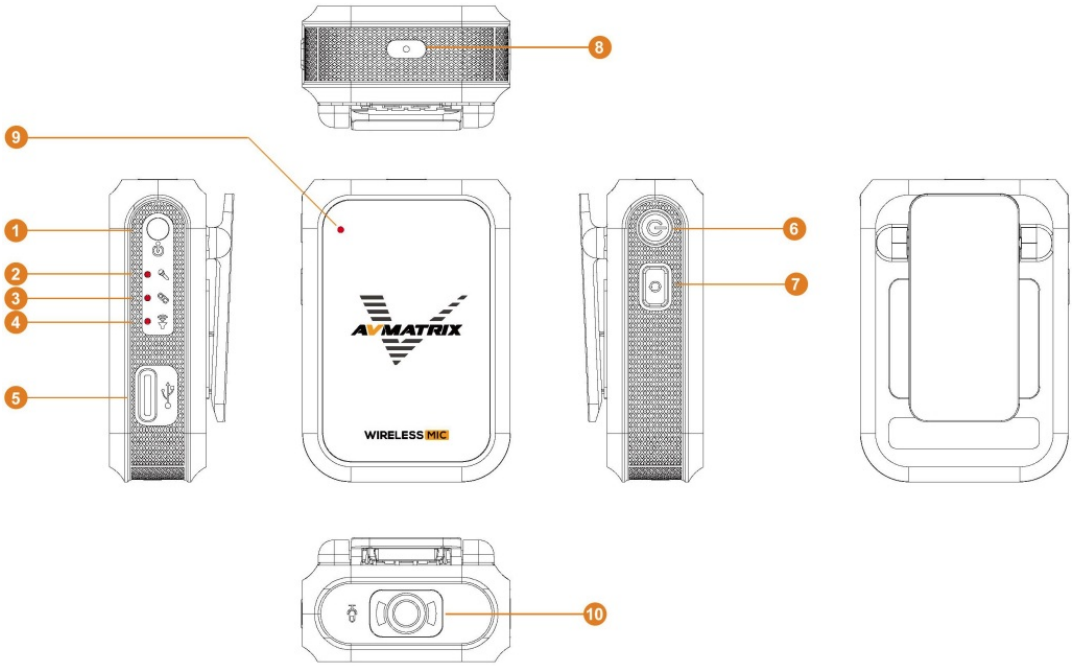
- Remote wireless connection
- Up to 2-CH audio pick up
- Two-channel Audio Output USB Output
- Long-Distance Transmission
- Support three-stage sensitivity adjustment
- Real-Time Monitoring with One-Button Muting

- Compatible with a variety of devices
- Clear TFT Color LCD Display
- Clip-on Design, Comfortable to Wear
- Long Battery Life

INTERFACES

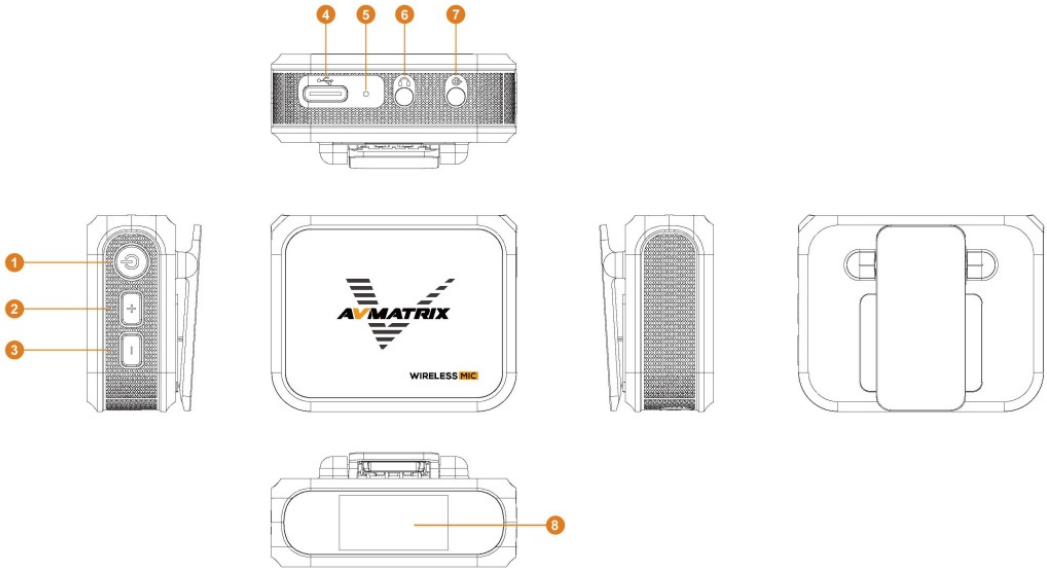
Interfaces

TX



1	Audio In (MIC/LINE in)
2	Microphone Indicator
3	Pairing Indicator
4	Sound Pressure Indicator
5	USB Type-C (Power Charge)
6	Power Button
7	Pairing Key
8	Reset Hole
9	Power Indicator
10	Microphones

RX



1	Power Button
2	Volume +
3	Volume –
4	USB Type-C(Power Charge & Sound Card)
5	Reset Hole
6	Earphone Out
7	Line Out
8	0.96 inch TFT color LCD display

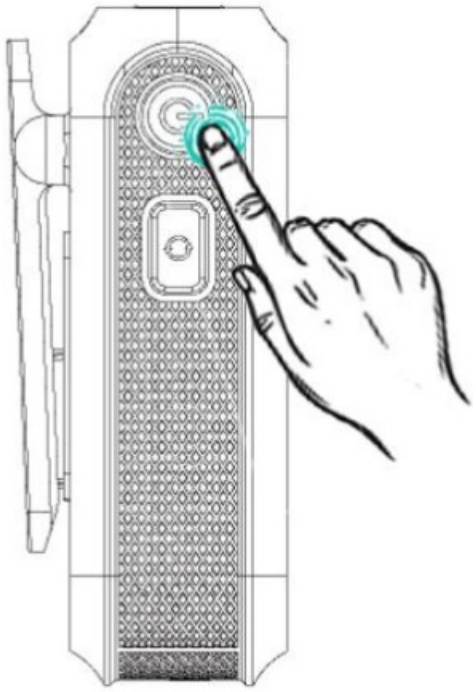
Specification

COMBO	WM12 Dual	2TX+1RX
	WM12 Single	1TX+1RX
TRANSMITTER	Audio In	3.5mm TRS
	Power In	USB Type-C (Power charge)
RECEIVER	Earphone Out	3.5mm TRS
	Line Out	3.5mm TRS

	Power In	USB Type-C (Power charge & Sound card)
WIRELESS	Modulation Mode	GFSK
	Operating Frequency	2.4GHz (2400M~2483 .5MHz)
	Transmission Range	100m (Open and undisturbed environment)
MIC	Frequency Range	100Hz ~ 20KHz±3dB
	Mic Polar Pattern	Omnidirectional
	Mic Sound Pressure Level	110dB SPL (Max)
	Signal-to-noise Ratio	≥90
	Sensitivity	TX: -34dB, RX: -94dB
DISPLAY	Display	0.96 inch TFT color LCD display
	Display Resolution	160 × 80
POWER	Battery Life	TX: 15h, RX: 4h
	Battery Capacity	TX: 300mAh, RX: 300mAh
	Battery Voltage	TX: 3.7V, RX: 3.7V
	Charging Time	TX: ≤1.5h (5V 1A), RX: ≤1.5h (5V 1A)
OTHER	Dimension (LWD)	TX: 34.7×50.1×20.6mm, RX: 50.1×40×23.3mm
	Weight	TX: 25g, RX: 32g, Gross Weight: 267g (2TX+RX)
	Operating Temperature	-20-60°C

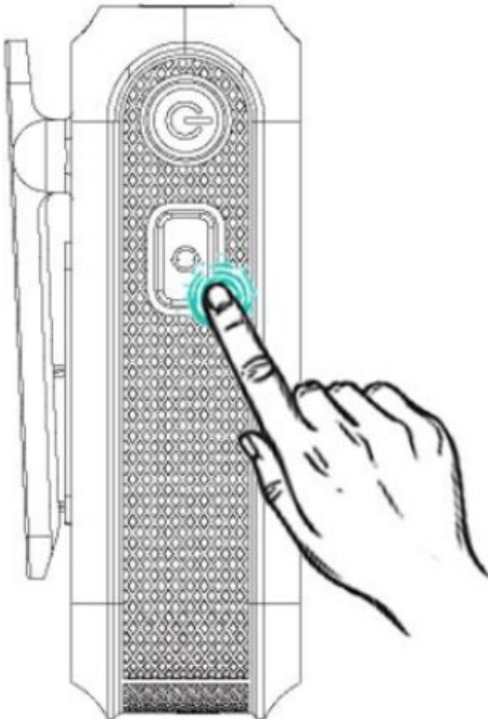
TRANSMITTER

Power Button



Power On	Press and hold the power button for 3 seconds to turn on the device. The power light will illuminate to confirmactivation.
Power Off	Press and hold the power button for 3s to switch off thepower.
Mute	Double-click the power button to enter mute mode. The sound pressure indicator will flas h red.

Pairing Button



(level of) Sensitivit y	Short press the pairing button to adjust the sensitivity by 3 levels, high, medium and low. The input connector indicator flashes red, yellow andgreen 3 times to indicate.
Pairings	Press and hold the Pairing button for 5s to enter thepairing mode in the power-on state, and the connection indicator will blink rapidly.
Input Mode Switchi ng	Press and hold 3s to switch between microphone mode and line mode.The input interfac e indicator will turn green to contraindicate phone mode, and turn red to indicate line mo de.

(level of) Sensitivity
The sensitivity of a wireless microphone is the strength of the output signal produced by the microphone at a certain sound pressure level, is usually measured in decibels (dB) . The higher the sensitivity, the larger the output signal produced by the microphone at the same level of sound pressure, which means that the microphone can pick up quieter sounds.The sensitivity adjustment can be adjusted according to the usage environment and actual needs. For example, when using the wireless microphone in a noisy environment, the sensitivity can be adjusted to high level to pick up human voice better; when using the wireless microphone in a quiet environment, the sensitivity can be adjusted to low level to avoid picking up ambient noise. The default medium level gain is the best gain.

Short press the pairing button to adjust the sensitivity by 3 levels, high, medium and low. Input connector indicator blinks red, yellow and green 3 times to indicate that the sensitivity has been adjusted successfully.

- **Red:** High sensitivity for noisy environments or long-distance sound pickup.
- **Yellow:** Medium sensitivity for general environments or medium distance pickup.

- **Green:** Low sensitivity for quiet environments or close pickup.

Pairings
Microphone pairing is the process of connecting a microphone receiver to an audio transmitter, and the followings are guidance to pair the wireless microphone:

Pairing steps

1. Power up both the transmitter and receiver in the on state.
2. Press and hold the transmitter pairing button for 5 seconds, the connection status indicator flashes rapidly to enter transmitter pairing mode.
3. Press and hold the volume + and volume – buttons of the receiver for 5 seconds, the connection status indicator flashes rapidly to enter the pairing mode of the receiver.
4. When the connection status indicator flashes rapidly, the microphone is pairing.
5. When the connection status indicator on the transmitter is always on and the signal icon on the receiver's screen changes to the connection icon, it means that it's successful connected.

Pairing Status Indication

- The connection status indicator flashes rapidly during the pairing process.
- After successful pairing, the connection status indicator on the transmitter is always on and the signal icon on the receiver's screen changes to the connection icon.
- When pairing fails, the Connection Status LED blinks slowly every 1 second.
- The status display flashes for every 1.5 seconds when the microphone signal strength falls below 20%.

Take note of

- After successful pairing, you can start using the wireless microphone.
- If pairing fails, try restarting the transmitter and receiver and repeat the above steps.
- If the microphone signal strength is too low, move the transmitter and receiver closer together.

Mode Switching

The wireless microphone system has two input modes, microphone input and analogue audio input mode, press and hold the 3s pairing button to switch between modes.

- When the Input Connector indicator shows green, it means that it is currently in microphone mode and the Input Connector receives signals from the microphone.
- When the Input Connector indicator is red, it means that it is currently in analogue audio mode and the Input Connector receives signals from the analogue audio input.

Battery Indicator

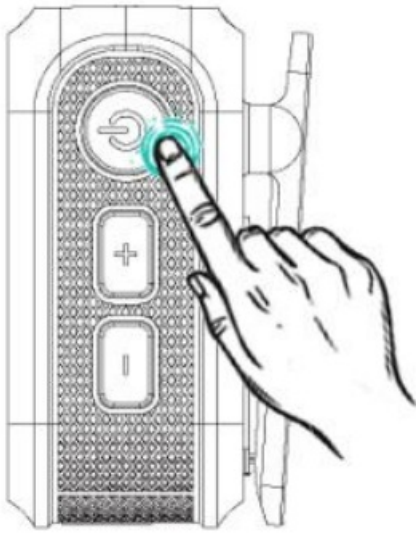
Charge status indication

- While charging, for battery levels below 25%, the power indicator blinks once per second.
- For battery level at 26-50%, the power indicator blinks 2 times per second.
- For battery level at 51-75%, the power indicator blinks 3 times per second.
- For battery level at 76-99%, the power indicator blinks 4 times per second.
- When fully charged, the indicator stays on continuously.

Note: When the power level is lower than 25%, the power indicator will flash once per second to remind you that the device is low on power and needs to be charged. When the power is low, it is recommended to charge it in time to avoid affecting the use.

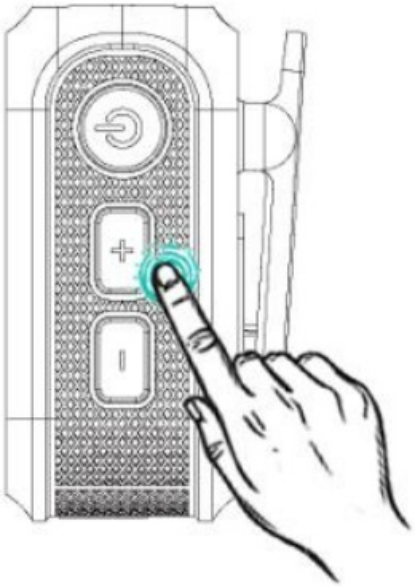
RECEIVER

Power Button



Power On/Off	Long press 3s to switch on/off.
Screen On/Off	Short press to turn off/on the screen.

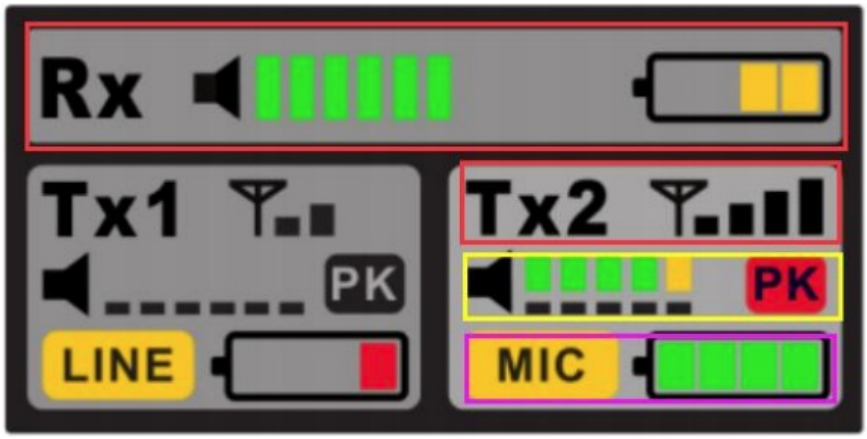
Volume



Volume +	Press Output Volume +
Volume –	Press Output Volume –
Pairing Mode Entry	Press Volume + and Volume – at the same time for 5 seconds, the signal icon on the screen will change to the connection icon and flash rapidly for 0.5s to enter pairingmode.

ON SCREEN DISPLAY

The wireless microphone has a clear screen display. The screen can display the microphone's status information, such as power level, volume indication, signal strength, mode, PK value and so on. The clear on-screen display helps users to better understand the status of the microphone and make finer adjustments.



①	Receiver Output Volume and Battery Indicator
②	Transmitter signal strength indication
③	Dynamic volume level indication on the large square transmitter, microphone sensitivity configuration level indication on the small square transmitter, the PK Limit Warning, PK BurstRed, Volume Too Loud.
④	Transmitter 3.5mm connector operating mode indication, microphone mode and line audio inputmode; And transmitter power indicatio.

Documents / Resources

	AVMATRIX WM12 Mini Wireless Microphone [pdf] Instruction Manual WM12 Mini Wireless Microphone, WM12, Mini Wireless Microphone, Wireless Microphone, Microphone

References

- User Manual

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