

Wireless Microphone

Personal In-ear Monitoring
Interview Camera-Mount Wireless

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

MT100 Bodypack Transmitter
MR100 Bodypack Receiver
Uni-directional lavalier microphone
Earphone
Mount adapter
3.5mm - 3.5mm jack plug cable
3.5mm - 6.3mm jack plug cable
XLR - 3.5mm plug cable
Carry case

Configuration of the Packages

This manual is for the M100 Wireless Microphone Packages. The contents of each package are described below. The package consists of a body-pack transmitter (MT100), a body-pack receiver (MR100), and their accessories.

**Body-pack transmitter
MT100**



**Body-pack receiver
MR100**



Supplied accessories

Uni-directional lavalier microphone (1) Holder clip (1) Wind screen (1) Shoe mount adapter (1) Belt clip (1)



XLR-3.5mm locking conversion output
cable for the MR100 (1)



Mono 3.5mm plug-3.5mm locking plug
conversion cable (1)



6.3mm plug-3.5mm plug
conversion cable (1)



In-ear earphone (1)



Carry case (1)



Features

The Microdot M100 camera-mount wireless lavalier microphone system features the proven combination of reliability, flexible control, and broadcast-quality sound for videographers, journalists, and content creators.

They are equipped with a DSP for transmission of highquality sound using digital compander processing.

The M100 gives you the tools to adapt and meet the wireless challenges that inevitably arise on set. The frequency scan function searches for the clearest frequency at your location.

The system includes a cardioid lavalier mic, an earphone, a bodypack transmitter(MT100), and a camera-mount receiver(MR100). It connects to a camcorder or a DSLR/mirrorless camera to capture crisp-sounding speech or dialog in noisy environments, for projects ranging from documentaries to wedding videos, corporate spots, and hands-free interviews.the packages can be used for various purposes, such as ENG (Electronic News Gathering) , EFP (Electronic Field Production) and sports events.

The contents of each package are described below.

Built for Dependable Performance in the Field

The M100 features rugged, metal chassis well suited for extended use on location. The lightweight and compact bodypack transmitter is easy to conceal. Its rounded edges are soft to the touch making it comfortable to wear for the talent. A locking connector ensures that your lav doesn't detach at a critical moment, while a convenient switch allows you to mute your mic.

Using the included shoemount adapter, the equally compact receiver easily mounts on your camera without adding much weight. The included cables allow you to connect the receiver to the 3.5mm or XLR audio input of any DSLR/mirrorless, camcorder, or recording device.

Both transmitter and receiver feature LED displays showing reception quality, battery status, and audio level.

Broadcast-Quality Sound

The M100 ships with a cardioid lavalier microphone, which delivers a natural sound optimized for speech intelligibility. Its directional cardioid polar pattern helps to reject unwanted background sound, making it ideal in loud environments such as trade-show floors, busy public areas, or sporting events.

Also as Wireless Monitor System

The M100 Stereo Bodypack Receiver with an Earphone from Microdot is an addition to their M series of wireless systems. It features adaptive diversity technology and can be used when paired with a companion transmitter as part of a wireless RF monitoring system for live stage, theater, and rehearsal applications.

Additional Features

- Adaptive-diversity reception for reliable transmission up to 330'
- 32 MHz bandwidth with 100 tunable UHF channel for clean reception to prevent intermodulation
- Pilot tone squelch for eliminating RF noise when transmitter is turned off
- Receiver with adjustable output range of 42 dB to match the audio input of your camera or recording device
- User-friendly menu operation with flexible control options
- Transmitter and receiver feature 3-step battery-life indicator
- RF Mute function
- 6 hours of battery life
- Powered via AA batteries batteries
- Wide range of accessories adapts the system to a variety of applications

M100 Frequency Band

590.000 MHz to 615 MHz (UHF-TV channels 00 to 99)

Body-pack transmitter (MT100)

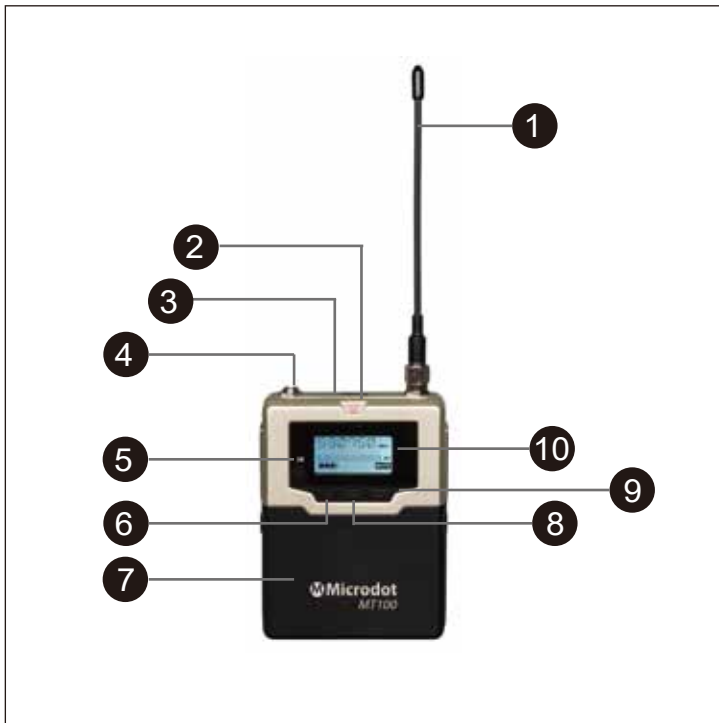
This transmitter is a lightweight, compact transmitter that employs a crystal-controlled PLL synthesizer. It is equipped with a muting function and a BMP-typemicrophone input connector. The RF power output can be switched. It is also equipped with a MIC/LINE input switching function to support a variety of input levels.

Body-pack receiver (MR100)

This receiver employs a true diversity method featuring little signal dropout and an angle-adjustable antenna. It comes with an adapter for mounting on a compact camcorder (HXR-NX3, etc.). It also features a Clear Channel Scan function to search for available channels.

Name and Function of Parts

Body-pack transmitter (MT100)



* Screw the plug's coupling ring onto the audio socket thread of the bodypack transmitter.

Notes

The audio input level is to MIC, a voltage for the lavalier microphone power supply is applied to the audio input connector. Special electrical wiring is used inside the audio input connector for this purpose.

• If a lavalier microphone other than the one supplied is connected, the proper performance may not be obtained.

5 Infrared detector

Receives the frequency and compander mode on the receiver.

6 9 UP or DOWN button

Selects functions or values shown on the display.

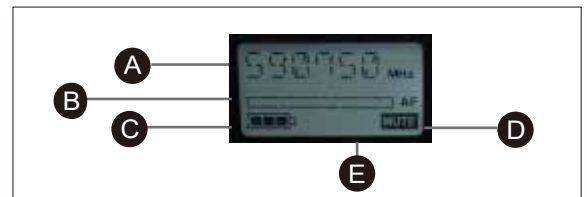
7 Battery compartment

Accepts two AA batteries (alkaline or nickel metal hydride, or lithium batteries).

8 SET button

Adjusts displayed function settings and enters the displayed value.

10 Display section



A Frequency

• Current receiving frequency

B AF audio level (audio frequency)

• Displays the audio level of the received transmitter

When the display shows full deflection, the audio input level is excessively high.

C Battery status of the transmitter

D MUTE muting function

• No RF signal received

E PILOT tone

• PILOT = Activated pilot tone evaluation

• No symbol = Evaluation is deactivated

• PILOT is black = Pilot tone is being received on the current frequency

Frequency Preset menu item

In the Frequency Preset menu item, you can adjust the receiving frequency of the receiver by adjusting the frequency bank and the channel.

To open the Frequency Preset menu item:

- * On the home screen, press the SET button three seconds to open the channel menu.
- * Press the UP or DOWN button, And Adjust the settings as desired.
- * Press the SET button to save the changes you made to the settings.

1 Antenna

2 POWER indicator

Displays the battery level

Indicator display	Status
On (blue)	Sufficient battery level
Flashing (red)	Battery is getting low
Off	Power is off or battery is empty

3 POWER/MUTING button

Turns the power on/off. You also use this button to turn the muting function on/off.

Function	Operation
Supply ON	Press button for three second or longer
Supply OFF	Press button until the indicator turns off
Muting ON	Press button
Muting OFF	

4 Audio input connector (3.5mm Locking Socket)

Connecting a microphone to the MT100

You can find a list of recommended Lavalier and headset microphones for the bodypack transmitter under "Microphones and cables".

Connecting an instrument or line source to the MT100

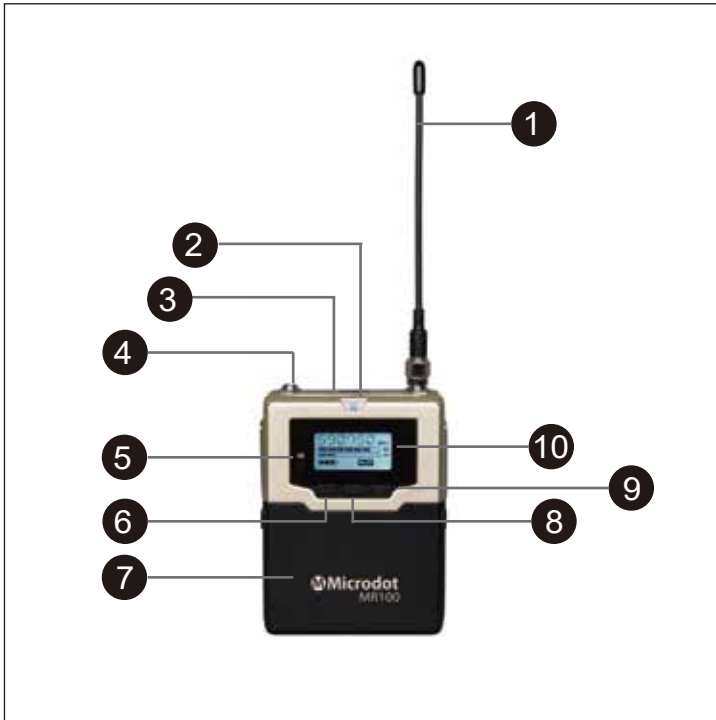
You can connect instruments or audio sources with a line level to the bodypack transmitter.

To do this, you will need the (6.3 mm jack plug on a lockable 3.5 mm jack plug) or (XLR-3F plug on lockable 3.5 mm jack plug) cables.

To connect a microphone to the bodypack transmitter:

* Insert the cable's 3.5 mm jack plug into the MIC socket on the bodypack transmitter as shown in the diagram.

Body-pack receiver (MR100)



1 Antenna

2 POWER indicator

Displays the battery level

Indicator display	Status
On (green)	Sufficient battery level
Flashing (blue to red)	Battery is getting low
Off	Power is off or battery is empty

3 POWER button

Turns the power on/off. You also use this button to check IR SEN.

Function	Operation
Supply ON	Press button for three second or longer
Supply OFF	Press button until the indicator turns off
IR SEN ON	Press button for one second

4 Audio output connector (3.5mm Locking Socket)

Connecting a earphone to the MR100

You can use a earphone for monitoring the audio output.

Connecting MR100 receiver to a camcorder, mixer, or amplifier

To do this, you will need the (3.5 mm jack plug on a lockable 3.5 m-m jack plug) or (XLR-3F plug on lockable 3.5 mm jack plug) cables.

Connecting MR100 receiver to Mobile Phone(iPhone)

To do this, you will need the (Apple original Lightning to 3.5 mm jack adapter) and (Microdot CL35 cable 3.5 mm TRS to TRRS) cables.

Notes

NOT including Microdot CL35 cable 3.5 mm TRS to TRRS
AND Apple original Lightning to 3.5 mm jack adapter

5 Infrared detector

Receives the frequency and press POWER button one second on the receiver.

6 9 UP or DOWN button

Selects functions or values shown on the display.

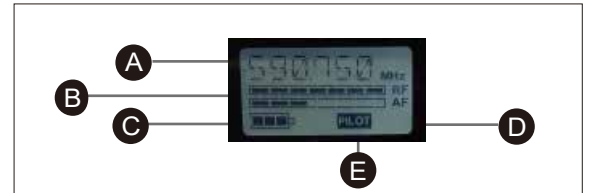
7 Battery compartment

Accepts two AA batteries (alkaline or nickel metal hydride, or lithium batteries).

8 SET button

Adjusts displayed function settings and enters the displayed value.

10 Display section



A Frequency

- Current receiving frequency

Frequency Preset menu item

In the Frequency Preset menu item, you can adjust the receiving frequency of the receiver by adjusting the frequency bank and the channel.

To open the Frequency Preset menu item:

- * On the home screen, press the SET button three seconds to open the channel menu.
- * Press the UP or DOWN button, And Adjust the settings as desired.
- * Press the SET button to save the changes you made to the settings.

Volume potentiometer

- adjust Vol 00 to Vol31

- * Press the SET button three seconds to open the channel menu, then Press the SET again, the Volume menu will be opened, adjust volume, Press the SET button to save the changes you made to the settings.

B AF audio level (audio frequency)

- Displays the audio level of the received transmitter

When the display shows full deflection, the audio input level is excessively high.

RF audio level (radio frequency input)

- Indicates the current reception level.

C Battery status of the transmitter

D MUTE muting function

- No RF signal received

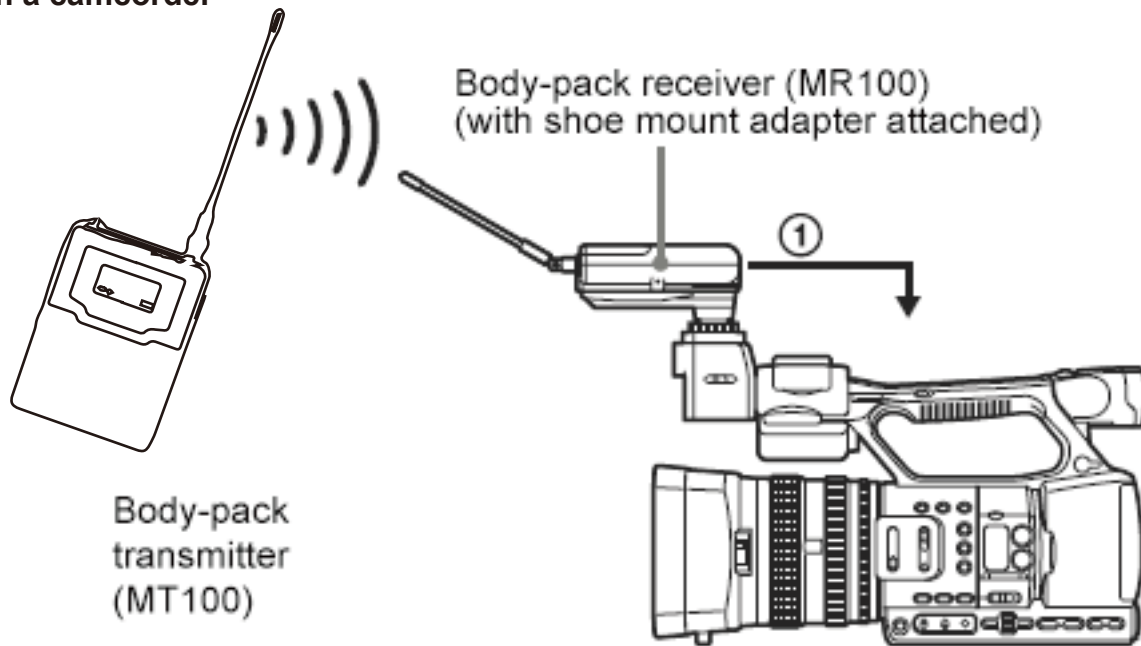
E PILOT tone

- PILOT = Activated pilot tone evaluation
- No symbol = Evaluation is deactivated
- PILOT is black = Pilot tone is being received on the current frequency

System Configuration Examples

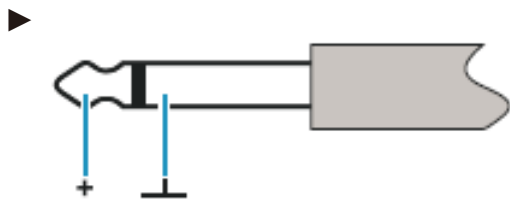
The following are configuration examples for use with M100 series devices.

Sample configuration for ENG (Electronic News Gathering) or EFP (Electronic Field Production) with a camcorder

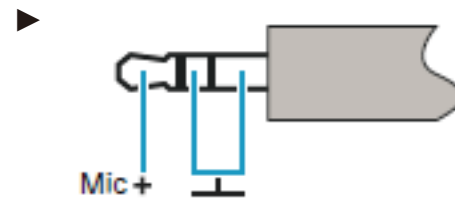


Pin assignment

6.3 mm mono jack plug, unbalanced

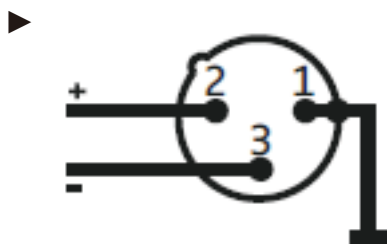


3.5 mm mic jack plug

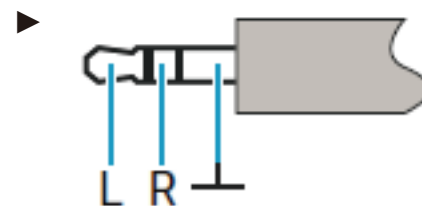


- Plug for lavalier and headset microphone

XLR-3 plug, balanced



3.5 mm stereo jack plug



- Plug for headphone and earphone cables

LED display

Transmitter



main menu



channel menu



mute on

Receiver



main menu



channel menu



volume menu

Input & Output



Antenna & Batteries



Belt-pack & Shoe-Mount



Specifications

You can find the cross-system and product-specific technical data in the sections below.

M100 System characteristics

Wireless Transmission	Analog UHF
Oscillator Type	Crystal-controlled PLL synthesizer
Receiving frequency ranges	590 – 615 MHz
Receiving frequencies	adjustable in 25 kHz steps each with up to 100 factory-preset channels, no intermodulation Switching bandwidth up to 32 MHz
Max Operating Range	330' / 100.6 m (Line of Sight)
Peak deviation	±48 kHz
Modulation	Wideband FM

MR100 Receiver characteristics

Antenna	Flexible Whip, Fixed
Signal-to-noise ratio (1 mV, peak deviation)	≥ 110 dBA
Total harmonic distortion (THD)	≤ 0.9 %
Audio output connector	1/8" / 3.5 mm TRS Female Output (Lockable)(mono, unbalanced)
Audio Output Level	+12 dBu
Housing	Metal
Display & Indicators	Back-Lit LCD (Battery Status, Output Level, RF Level)
Form Factor	Camera-Mount
Mounting Options	Shoe-Mount (with Included Hardware)
Power supply	2 AA batteries, 1,5 V
Operating time Typically	6 h
Dimensions	Approx. 2.6 x 3.3 x 0.9" / 65 x 85 x 23 mm
Weight (without batteries)	Approx. 5.6 oz / 160 g

MT100 Transmitter characteristics

Antenna	Flexible Whip, Fixed
Audio Input Level	3 V RMS (Max)
Muting	Mute Switch
Audio input connector	1/8" / 3.5 mm TRS Female Output (Lockable)(mono, unbalanced)
RF Output Power	30 mW
Housing	Metal
Display & Indicators	Back-Lit LCD (Battery Status, Output Level, RF Level)
Form Factor	Bodypack
Frequency Response	80 Hz to 18 kHz (Mic) 25 Hz to 18 kHz (Line)
Sync Method	IR
Power supply	2 AA batteries, 1,5 V
Operating time Typically	6 h
Dimensions	Approx. 2.6 x 3.3 x 0.9" / 65 x 85 x 23 mm
Weight (without batteries)	Approx. 5.6 oz / 160 g

Lavalier microphone

Type	Electret condenser microphone
Sound Field	Mono
Frequency response	50 Hz to 16,000 Hz
Directivity	Uni-directional
Sensitivity	-46.0 ±3 dB (0 dB =1 V/Pa, at 1 kHz)
Maximum SPL	130 dB SPL Peak
Output Connectors	1/8" / 3.5 mm TRS Male Unbalanced (Lockable)
Cable	2.3 mm dia., 2-conductor shielded cable, 1 m (3.9 feet) long
Dimensions	φ 12 × 35 mm (0.5 x 1.4") (with cable and connector)
Weight	Approx. 20 g (0.7 oz)
Operating Voltage	5 V

Earphone

Type	Electret Condenser, Mono, In-Ear
Output Level	-35dB
Frequency response	20Hz - 20kHz
Directivity	Omnidirectional
Connector	Gold-Plated 3-Conductor 3.5mm Mono Mini Plug
Cable	1.2 m (4.7 feet) long
Weight	Approx. 12 g (0.4 oz)
Operating Voltage	5 V

Packaging Info

Package Weight	1100g (2.43 lb)
Box Dimensions (LxWxH)	290 x 230 x 83mm (11.42 x 9.06 x 3.27")