

OWNER'S MANUAL

UHF Wireless Transmitter

Model: EM-100



**Diversity
Wireless System
for On Stage In-ear Monitor**

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Thank you for choosing our wireless In-ear Monitor system, In order to obtain the best efficiency from the system, you are recommended to read this instruction manual carefully.

System Components

All systems include

Transmitter

6.35mm audio cable

1* TNC antenna

Power supply

Belt-pack Receiver

Earphone

2 x AA Batteries

User guide

System Features

UHF 902.25-926.75MHz frequency range

Mono Outputs, four levels RF output selectable

True diversity for maximum range and dropout protection

PLL Synthesized circuit

Pre-set 100 (10*10) selectable frequencies

IR sync downloading the frequency from transmitter

LCD display shows the RF level, AF level, channel and frequency.

EIA standard 1/2U rack-mountable metal chassis

Up to 200m line-of-sight operating range

Designed for professional stage performance applications

Transmitter Features

Front Panel

1. Power switch

Tap to turn on, tap to turn off, blue light up when transmitter turns on

2. LCD display

The 63mm*22mm high resolution LCD display shows the group, channel, frequency, antenna status, AF & RF level and IR set.

3. IR (Infrared) port

Send IR signal to receiver for synchronization

4. UP button

Adjust the frequency, channel, group incrementally

5. SET button

Menu control to set group, channel, frequency, IR Synchron.

6. DOWN button

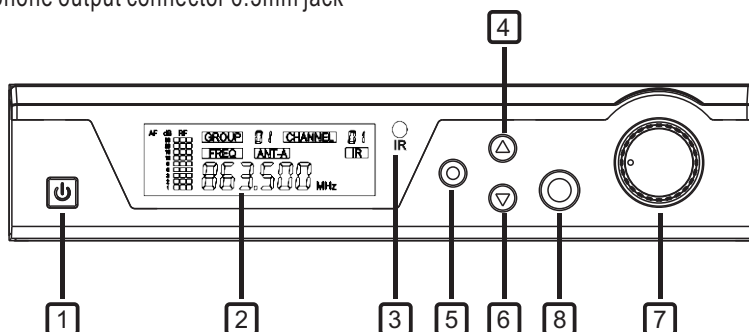
Adjust the frequency, channel, group degressively

7. Volume control

Adjust the volume level, volume knob encircled by blue light

8. Headphone Jack

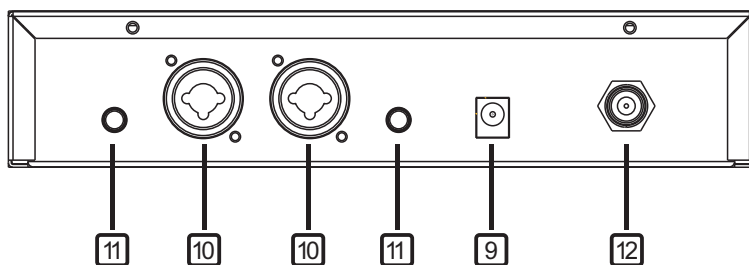
Headphone output connector 6.3mm jack



Transmitter Features

Back Panel

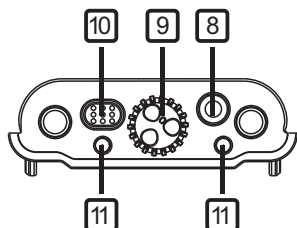
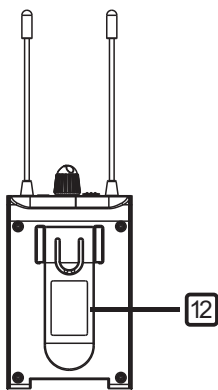
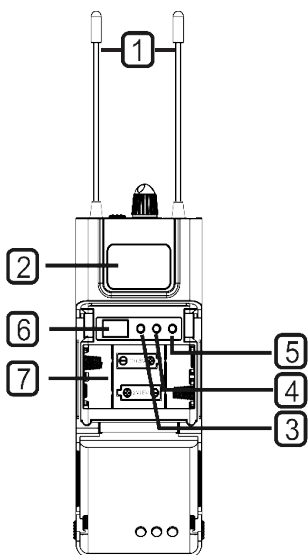
- 9. Power supply jack (DC12-18V / 500mA)
Connecting the power supply unit
- 10. 6.35mm (1/4") audio input jack
Connect the audio source, e.g. of mixer or computer
- 11. Volume control
Adjust the volume level
- 12. TNC antennas socket
Connect the high gain antenna



Belt-pack Receiver Features

Body-pack Receiver

1. Antennas
1/4 wave length wire type antenna, it should be fully extended during normal operations
2. Backlit LCD
Display frequency and battery life, if the battery symbol blinks, the battery need to be replaced immediately
3. UP button
Adjust the frequency, incrementally
4. SET button
Menu control to set frequency
5. DOWN button
Adjust the frequency degeneressively
6. IR infrared port
Transmitter infrared beam to synchronize frequencies, hold the receiver with its IR port facing direct to Transmitter's IR port in a distance between 5-20cm.
7. Battery compartment
To replace batteries, slightly press the marked positions on left and right side of the cover and open forward, make sure to put the battery in the right polar directions.
8. Earphone audio output
3. 5mm earphone audio output socket
9. Volume control
Clockwise to enlarge, counter-clockwise to reduce
10. Light touch power switch
Tap to turn on, long press (2 seconds) to turn off.
11. RF Indicator
Antenna A and B indicator
12. Belt-clip
Clip to the belt

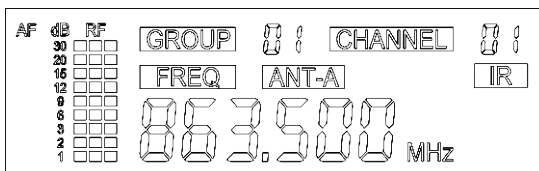


System Setup

1. Connect the included AC power supply to the rear of the receiver and turn on the receiver.

2. Standard Display

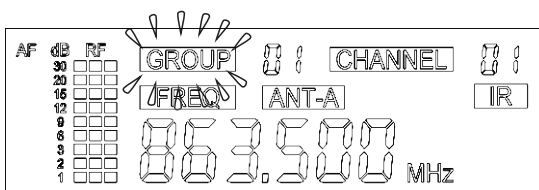
The standard display shows the preselected group, channel, RF power level.



Group

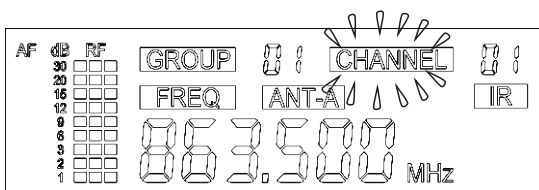
Push the SET button one time, the GROUP blink, Push the up and down buttons to set the desired group (01-10), Press SET again to confirm. The display will return to standard after a short period of time of non-activity automatically.

NOTE: Each group 01-10 consists of 10 channels, each corresponding to a specific frequency.



Channel

After the step of setting group, press the SET again, the CHANNEL blink. Push the up and down buttons to set the desired channel (01-10), Press SET again to confirm. The display will return to standard after a short period of time of non-activity automatically.

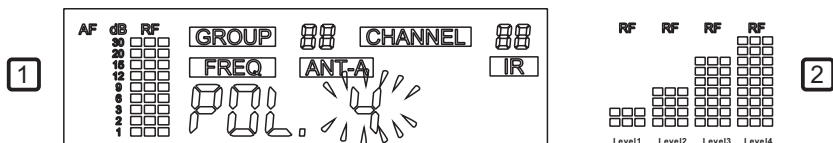


System Setup

RF Power

After the step of setting channel, press the SET again, the POL “4” blink (as below picture1). Push the up and down buttons to set the desired RF Power level (1-4), Level 1 shows two lines of signals, the corresponding RF power is 1mW.

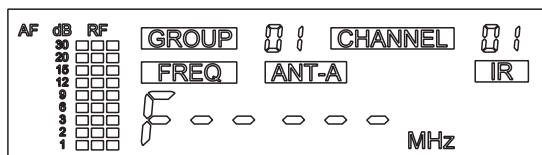
NOTE: The larger RF power, the Longer distance.



IR Synch

Anytime press the SET button and hold for 1 second, the receiver start to send the infrared signals (as below picture), then put the belt-pack receiver's IR port close to the Transmitter /Main unit's IR port , the receiver has to be synchronized to the same frequency (group and channel) before using.

Note: The receiver have to be turned off and return-on while transmitter send infrared signals. After a successful sync, the receiver's blue LED RF indicator lights up.



Specifications

Transmitter (Main Unit)

Frequency Preparation	PLL Synthesized Control
Frequency Range	902.25-926.75 MHz (Region dependent)
Frequency Type	F3E
Transmission Method	FM, Mono
Channels	100(10x10)
RF Output Power	1mW
Oscillation System	VCO
Frequency Response	60Hz-17KHz+/-3dB
S/N Ratio	≥105dB
T.H.D	<0.5% at 1KHz
Dynamic Range	>100dB
Operating Temperature	-10-+50°C
Display	Backlit LCD (63mm*22mm)
Audio Input	2*6.35mm Jack
Antenna	1*TNC
Power Supply	DC12V-18V/500mA
Dimensions(L*W*H)	210*170*44mm

Receiver (Belt-pack)

Frequency Preparation	PLL Synthesized Control
Frequency Range	902.25-926.75 MHz (Region dependent)
Transmission Method	FM, Mono
Type of reception	Diversity
Receive Sensitivity	-107dBm (sinad ≥ 30dB)
Output	3. 5mm straight pin
Earphone output	3.5mmφ/ 16ohms 105mW
Controls	Power ON//OFF, Volume, SET frequency
Indicators	LED (AF)
Interface	Infrared
Antenna	1/4 wave Length Wire Type
Power Supply	2*AA battery
Operating Voltage	3V
Operating time	10h (depending on batteries)
Dimensions(L*W*H)	110*63*21mm

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



The specification won't do any further notice for the improvement

Actual product will not be as pictured