

Stu**di**omaster[®]

PROFESSIONAL

ER-31

VHF Wireless System



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1. Introduction

Thank you for purchasing the Studiomaster Professional ER-31 Wireless System.

To ensure optimum performance & safety, please follow this instruction manual carefully.

Please retain this manual for future reference.

For any complaint, feedback or testimonials please contact our distributor / dealer.

2. Features

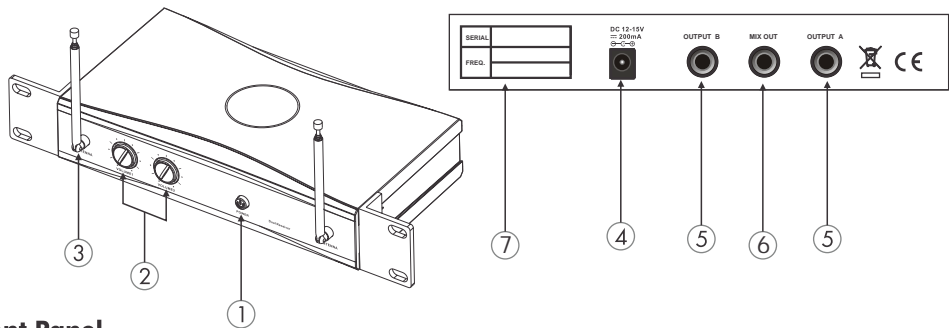
- VHF Band frequency Quartz Lock Control.
 - Dual Channel Receiver.
 - LED Indicator (Power, RF) & Telescopic antenna.
- Output: Unbalanced 1/4" Jack.
 - Special Circuit design to minimize microphone switch noise.

3. System Components

- Model : ER 31/EM 31/EM 31 (Receiver + Handheld + Handheld),
ER 31/EM 31/EL 31 (Receiver + Handheld + Lapel)
 - AC Power adapter for receiver x1
- Audio Cable x1
 - Battery (9V) x1
 - Instruction Manual x1

4. Operating Instructions

Receiver Features: Front & Rear Panel



Front Panel

1. **Power ON Switch:** Turns receiver power on/off, the Red light glows which indicates Receiver is ON.
2. **Volume Control & Reception Indicator:** It adjust the volume of input signal. Also the Blue indicator light glows to indicate the reception of microphone. (use volume 1 for mix output)
3. **Antenna:** The antenna receives signals from the Transmitter. Keep the antenna fully extended for better signal strength.

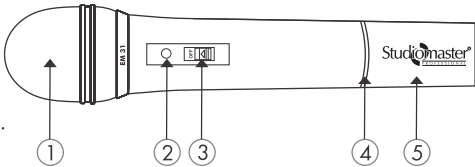
Rear Panel

4. **DC Input Socket:** The DC Jack is used to connect the supplied DC 12-18V Power Supply Adapter.
5. **Unbalanced Audio Output:** Connect a 1/4" (6.35) unbalanced TRS Jack from this receiver in to the input of the mixer/amplifier/powerd speaker.
6. **Mix Audio output:** 1/4" (6.35mm) unbalanced TRS Jack master output for channel A & B.
7. **Serial No & Frequency:** The following table indicate serial no. & frequency of receiver.

WIRELESS MIC. RECEIVER	
SERIAL NO	NO. 00000001
FREQUENCY	209.820 MHz
	233.820 MHz

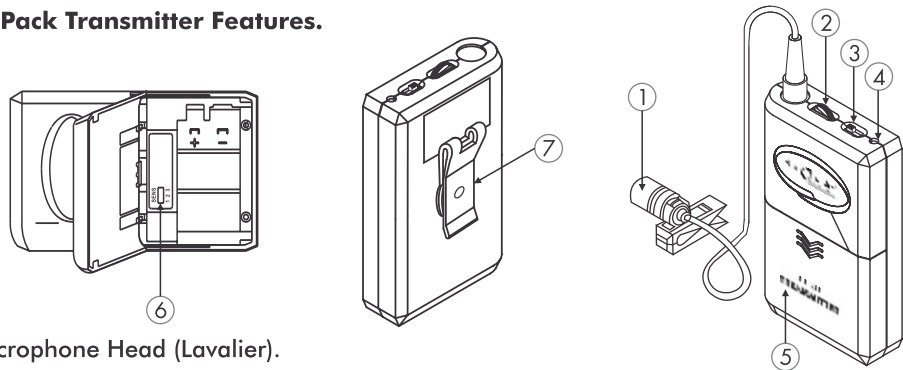
Handheld Transmitter Features

1. **Grill:** It protects the Diaphragm from damages. Also acts as an effective wind & pop filter.
2. **Power LED:** This LED lights up when the transmitter is switched ON.
3. **Power ON/OFF & Mute Switch:** This switch can be used ON/Off or Mute the microphone as required.



4. **Color Ring:** This color ring is used to differentiate between transmitters when many transmitters are being used at the same time.
5. **Battery Cover:** Unscrew for access to the 9V battery compartment.

Body Pack Transmitter Features.



1. **Microphone Head (Lavalier).**
2. **Volume Control:** It adjust the volume of input signal.
3. **Power ON/OFF & Mute Switch:** This switch can be used to ON/Off or Mute the microphone as required.
4. **Power LED:** This LED lights up when the transmitter is switched ON.
5. **Battery Cover:** Slide downward for access to the 9V battery compartment.
6. **Mic sensitivity switching:** It sets the Mic sensitivity in 3 levels.
7. **Belt Clip:** To hang on belt.

Usage Tips

- Make sure you can always see the receiver antenna from the transmitter position.
- Keep the distance from transmitter to receiver as short as possible
- Avoid placing the receiver antennas near metal surfaces and obstruction.
- Perform a walk through before performance or presentation. If dead spots are found, adjust location of receiver. If dead spots remain mark spots and avoid that spot.

5. Basic Troubleshooting

Issue	Solution
Receiver Indicator not lighting.	<ul style="list-style-type: none"> Make sure AC adapter is securely plugged into electrical outlet and into POWER connector on rear panel of receiver. Make sure AC electrical outlet works and is supplying proper voltage.
Audio light glows but no sound.	<ul style="list-style-type: none"> Please check gain levels & cable connections.
Distortion or unwanted noise bursts	<ul style="list-style-type: none"> Remove nearby sources of RF interference (CD players, computers, cell phones, digital effects, in-ear monitor systems, etc.) Reduce transmitter gain. Replace transmitter battery. If using multiple systems, change the channel of one of the active systems.

6. Technical Specifications

ER-31

Receiver Type	Non-Diversity Receiver
Receiving Mode	Quartz Control Fixed Frequency
Frequency Stabilization	0.005% / 25° C
Modulation Type	FM(F3E)
Max. Deviation	±40KHz
Dynamic range	>100 dB
S/N Ratio	>90 dB
Frequency Response	50Hz-15KHz (±3 dB)
T .H.D. (Total Harmonic Distortion)	<1%
Audio Output Level	Unbalanced: 300mV (10KΩ load at deviation = ±40 KHz)
Output	Unbalanced 1/4" Jack
Power Supply	DC 12-18V
Dimensions	152 x 98 x 36 mm
Weight	226g

Transmitter Specifications (EM-31 & EL-31)

Microphone Type	Unidirectional Dynamic
Spurious Emissions	45 dBc
RF Output Power	15 mW Max
Battery	9V Alkaline Battery
Current Drain	30 mA (Max)
Battery Life	6-8 hr.

7. Safety Instructions

- Keep the wireless receiver in a good location to ensure good signal strength.
- Do not drop the Microphone, Transmitter or receiver; this could severely damage the product
- Please keep the product away from direct sunrays & rain.
- Please keep the product away from heavy magnetic or electromagnetic fields, it could affect product performance.
- Please switch off when removing the batteries.
- Please remove the batteries/ power supply when the product is not being used for a long time.
- Do not open any of the components yourself, for repairs please contact an authorised Studiomaster Professional.
- Do not use systems with the same frequency at the same place, please separate them by a considerable distance.

* Design and specification are subject to change without notice



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A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East), Mumbai-400 093, India.
Tel.: +91-22-42869047 / 4286 9000 / Fax +91-22-26871453
E info@audioplus-india.com W www.studiomasterprofessional.com/www.audioplus-india.com